195

PALOS VERDES
LIBRARY DISTRICT
Connecting People, Information, and Ideas

U.S. Consumer Product Safety Commission
4330 East West Highway
Bethesda, MD 20814

January 29, 2009

To whom it may concern:

My name is Alison Orr and I am a librarian at the Palos Verdes Library District. Along with my colleagues, I serve young library patrons—age 0 to 18—and their parents, teachers and caregivers.

Attached is a letter I sent to Representative Rohrabacher (46th District, California) regarding the potential impact of the Consumer Product Safety Improvement Act of 2008 on the Palos Verdes Library District. We ask Representative Rohrabacher and the U.S. Consumer Product Safety Commission to please consider our library and how the CPSIA could have a devastating effect on the community we serve.

Thank you.

Sincerely,

Alison Orr

Alison Orr
Young Adult Assistant Manager
Palos Verdes Library District
701 Silver Spur Rd.
Rolling Hills Estates, CA 90274
(310) 377-9584 x205
aorr@pvld.org

PALOS VERDES LIBRARY DISTRICT
Connecting People, Information, and Ideas

2009 JAN 33 A 10:34

The Honorable Dana Rohrabacher
101 Main Street, Suite 380
Huntington Beach, CA 92648
January 28, 2009

Dear Representative Rohrabacher:

My name is Alison Orr and I am a librarian at the Palos Verdes Library District. Along with my colleagues, I serve young library patrons—age 0 to 18—and their parents, teachers and caregivers.

It has come to our attention that the Consumer Product Safety Improvement Act of 2008 has been interpreted to include books as a product that must be tested for lead. Making these testing regulations retroactive would require both school and public libraries to take drastic steps to come into compliance. We would either have to ban children from the Palos Verdes Library District or pull every book intended for children under the age of 12 from our bookshelves at the time children are fostering a lifelong love of learning and reading.

Please consider how the Consumer Product Safety Improvement Act of 2008 would impact the Palos Verdes Library District. As you can see from the attached report, the annual circulation of materials at the Palos Verdes Library District in 2007-2008 was 852,341. 41% of that total, 350,739, were materials from the children's sections. In our library district, we have 97,601 items in the children's sections.

If we had to ban children from the Palos Verdes Library District or remove all books intended for children under the age of 12, this would be devastating to library patrons, especially children, parents and teachers. Preventing patrons from using books and other materials for recreational and informational needs is contrary to the purpose of libraries in general and to the Palos Verdes Library District mission and vision statements.

The Consumer Product Safety Improvement Act of 2008 would be devastating for the Palos Verdes Library District and the patrons we serve for the following reasons:

- Blockading the library children's areas or moving the books would be a great expense – both in dollars and time. This expense will be incurred at a time of great fiscal hardship in the state of California and in the country.
- Denying access to materials that were purchased with tax revenue is wasteful.
- Prevents children and teachers from completing state standard based assignments.
- Prevents children, teachers and parents from meeting recreational and informational reading needs.
- Hinders parents, teachers, caregivers and children from developing a love of reading and crucial early literacy skills by depriving them of children's books and other materials.
- Severely curtails many library programs designed to foster a love of reading in children including "Babies at the Library," "Baby Playdates" and other programs supported through our Early Learning with Families grant, "Preschool Storytimes" and the annual "Summer Reading Program."

The Palos Verdes Library District has seriously considered the consequences the Consumer Product Safety Improvement Act of 2008 would have on our libraries and the community we serve. Please see the attached report for more details about children's materials and children's programs at the Palos Verdes Library District and the potential impact of the Consumer Product Safety Act of 2008.

In order to allow children and families to continue accessing critical library materials, please either exempt books from the Consumer Product Safety Improvement Act of 2008, accept the component tests that have already been done, or exempt all books currently in school and public libraries. This will ensure that our children continue to have access to safe and educational library materials.

Thank you.

Sincerely,

Alison Orr
Young Adult Assistant Manager
Palos Verdes Library District
701 Silver Spur Rd.
Rolling Hills Estates, CA 90274
(310) 377-9584 x205
aorr@pvld.org

**Impact of CPSIA on the Palos Verdes Library District:**

Total annual PVLD Circulation 2007-08: 852,341
Children's annual circulation 350,739 (41% of total)

Annual programming attendance, preschool – 5th grade: 37,217

Annual door count: 623,923

Young Readers COLLECTION:
Peninsula Center Library (PC) YR Books: 69,078

Miraleste Library (MIR) YR Books: 17,114

Malaga Cove (MC) YR Books: 7,692

Teen Annex: 677 (annex is open to 6th grade and up. 6th graders can be as young as 11 years old)

PVLD YR Periodicals: all branches and annex: 3040

**Total PVLD YR books and periodicals: 97,601**

PC YR AV: 3,118

MIR YR AV: 845

MC YR AV: 436

**Total PVLD YR Audio/Visual: 4,399**

**Total PVLD YR: 102,000**

(Parenting Shelf at MC and PC, shelved in YR area, is not included in this total: 469)

**Other materials available to children/used in programming and storytimes:**

PC Puppets: used for storytime at all branches and PVLD Puppeteers: 100+

PC Games: board games – used for programs – 20+

PC - Felt and flannel pieces – available all open hours - no count available

PC: developmental manipulatives- for preschool – used at storytimes
- Teddy bears: 30
- Scarfs: 24
- Beanbags: 24
- Rhythm instruments: 40

PC: Toys for babies: 70+ items - used for Baby storytime

PC: Puzzles - 40+ at PC, available all open hours

MIR: Toys and puzzles – available all open hours: 90+ items

MC: Toys: 41 – available all open hours

MC: Puzzles (wood): 14 – available all open hours

MC: Puppets and stuffed animals: 101 (includes the 6 big stuffed animal "chairs" on the floor)

MC: Playtime toys – used for Playdate and ELF speaker series - 50 items+ includes blocks, rattles, playtunnels and much more

All agencies: Stamps/Ink – 50+ stamps and ink used all open hours + 50 +

All agencies: Craft materials - paint, ink, paper, glue stick, scissors, craft sticks, chenille sticks, paper, crayons, markers, colored pencils, tile, felt, foam stickers and cut outs. - no count available for these items – used for storytimes and craft programs

All agencies: SRP materials: 3,000 bags, 200 carnival prizes, 30,000 patches, 7,000 ROTW prizes

**Issues: How to comply with CSPIA by keeping children age 12 and under from being exposed to non regulated items designed primarily for children**

PVLD owns 100,000 YR books, CDs, DVDs and other formats . 40-45% of books checked out each month are YR books.

- Based on the layout at Malaga Cove, it is feasible to close the YR section at Malaga Cove, using some kind of temporary barrier (cones,yellow tape, book trucks) YR nonfiction is shelved in the Adult Nonfiction section and would probably need to be moved to the closed YR area, perhaps on book trucks.

- At Miraleste and PC, it would be more difficult to close the YR stacks because of the layout of the library. It could be done with cones, yellow tape and book trucks, but would probably need staff patrolling it we want to implement the closed stacks effectively.

- The Annex serves teens grades 6 – 12. It would be possible to change the grade range to 7th and up, which would generally mean the age level visiting is at least 12 years old. The Annex collection is can only be checked out by the teens visiting the Annex

- An alternative at all three branches is to box the books and store them. This method is more effective in preventing exposure to books. However, the expense would be high:
  Labor:

Boxes:
Space: (probably would need to rent space)

**Impact:** The impact would be devastating to library patrons, especially children, parents and teachers. Preventing patrons from using books and other materials for reading, recreational and information needs is contrary to the purpose of librarles in general and to the PVLD mission and vision statements, and will cause a great strain on the library budget.
Specifically:

- Expense and labor as described above will be incurred at a time of great fiscal hardship in the state of California and in the country.
- Wastefulness of denying access to materials especially since these materials are purchased with tax revenue
- Preventing children and teachers from completing state standard based assignments, Preventing children, teachers and parents from meeting recreational and informational reading needs
- Hindering parents, teachers, caregivers and children from developing a love of reading and crucial early literacy skills by depriving them of children's books and other materials
- Preventing parents, teachers, caregivers and children from developing a love of reading and crucial early literacy skills by severely curtaining Babies, Playdate and ELF programming preschool storytimes, and summer reading programs

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38!

**Thirty years in business has grown to designing & manufacturing luggage, backpacks, child carriers, briefcases, tote bags, computer bags, guitar bags, drum bags, cymbal bags, waistpacks, and other bag products. We are known far & wide for the excellent service - good design, durable materials & production - that our products give. We frequently work with associations such as schools to customize products for the associations' give-aways [such as durable convention bags], members' & administration's own use, or re-sale. In addition to the excellence of our product, many customers are pleased that we have continued to manufacture in the USA.**

January 29, 2009

CPSC – FAXES 301-504-0124 & 301-504-0025

Dear CPSC:

Please amend the CPSIA to allow materials testing papers -msds - manufacturers safety data sheets - as provided by materials manufacturers to be the *criteria used by children's product manufacturers manufacturing in the USA.*

USA materials manufacturers such as my company purchases from have comprehensive testing protocol and results papers which they provide us upon request. Purchasing companies that are using materials of which they are not invasively changing or modifying these properties should be permitted to be **compliant under an amended CPSIA which recognizes the manufacturers safety data sheets.**

If these data sheets are not familiar to the CPSC I would be happy to send sheets and information to you.

Thank you for your consideration,

Sincerely,

Nancy Gold, Pres.
Tough Traveler Ltd.
www.toughtraveler.com
1-800-GO-TOUGH

197

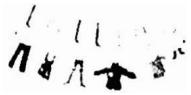
**Stevenson, Todd**

**From:** Sandrine Droumenq [sandrine@lolligo.com]
**Sent:** Thursday, January 29, 2009 3:36 PM
**To:** Lead Determinations
**Subject:** Request for Comments.
**Attachments:** Comments to CPSC.pdf; ATT00001.htm

Please find here enclosed a response from Lolligo LLC to the CPSC's request for comments for section 101. Thank you for taking it into consideration,

Sincerely,

Sandrine Droumenq
Lolligo Managing Partner



info@lolligo.com

January 29, 2009

To The Consumer Product Safety Commission

Fm Lolligo, LLC

39 Ely Brook Road,

East Hampton, NY 11937

info@lolligo.com

**REFERENCE: Comments regarding exemptions for section 101 of the Consumer Product Safety Improvement Act (CPSIA)**

Dear Sirs,

We are the joint managing partners of Lolligo, LLC, a New York-based importer of high-quality children's clothing from Germany (Ewers brand) and The Netherlands (Reset and Blemish brands).

We would like to present the following comments regarding possible exemptions to third-party laboratory testing:

**Oeko-Tex Certified Products**

As you may be aware, Oeko-Tex Standard 100 was developed in 1992 and is an international testing and certification system for textiles, prohibiting or limiting the use of certain chemicals, including flame-retardant and biocide finishes in clothing.

Checks for harmful substances are made at each stage of the production process and samples are tested for: pH-value, formaldehyde content, the presence of pesticides, extractable heavy metals, chlorinated organic carriers, and preservatives, such as pentachlorophenol and tetrachlorophenol. The tests also include checks for any MAC amines in azo dyestuffs and allergy-inducing dyestuffs.

In order to maintain its adherence to its strict certification standards, the Oeko-Tex organization also carries out unannounced testing of products directly at production sites and on finished products.

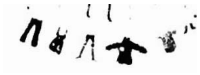
Most importantly, any item granted Oeko-Tex Standard 100 certification **must have a lead content of less than 0.2 ppm - significantly below the levels set under the CPSIA**. So it is clear, that clothing carrying the Oeko-Tex 100 certification is extremely safe for children, and clearly meets the requirements of the new legislation from February 10, 2009, and even beyond the 90ppm requirements coming into effect in 2011.

If you require any further information on the Oeko-Tex certification and testing methodology, please may we direct you to the organization's web site: www.oeko-tex.com.

**Already tested products**

As part of their comprehensive and stringent approach to ensuring product safety and quality, our brands already carry tests with third-party laboratories on finished products and components in the country of production. We sincerely request the CPSC to examine the third-party testing documents and certifications already granted to our clothing lines, and to accept these as more than sufficient proof of the safety and quality of the clothing we are importing.

Any insistence from the CSPC requiring Lolligo to submit our clothing products for further third-party testing, by production batch, would be unviable from a practical and financial perspective, adding a significant burden to our overhead, and creating logistical issues for a small company, importing relatively small quantities of clothing.



info@lolligo.com

***Labeling***

*Specific labeling on each product with the detailed testing information, as required by the CPSIA, presents another logistical difficulty, as it would mean having to produce several different labels for small quantities of clothing.*

*Instead of asking us to produce individual labels for each item, we would ask the CPSC to accept the RN number - which is already used by many companies, including ours, to track individual items of clothing - as an acceptable and more efficient means of ensuring the quality and testing status of any individual item.*

*We very much hope to work with the CPSC in a full spirit of support and cooperation to allow our business to flourish in already difficult market conditions.*

*Kind regards,*

*Lisette van Adrichem and Sandrine Droumenq*

*Lolligo LLC*

198

**Stevenson, Todd**

**From:** Tina Hill [tina@kidzsack.com]
**Sent:** Thursday, January 29, 2009 12:32 PM
**To:** Lead Exclusions
**Subject:** FW: Comments regarding the CPSIA law

January 29, 2009

Dear House Energy and Commerce Committee Members—

My name is Tina Hill and I am a small business owner that is writing to you regarding the new CPSIA law. It is very important that you know how we small manufacturers feel about this new law and how it is impacting our small, start up businesses. I belong to a entrepreneur network mostly made up of mompreneurs and the CPSIA is a daily topic of discussion. There are complaints posted on a daily basis with no solutions in sight. I've heard comments from small clothing designers telling me that they're required to have every piece of fabric tested in their clothing lines for children...and, "How can I possibly afford that."

I make the Kidzsack, www.kidzsack.com. My backsack, as per the new law, requires three different tests at $100 per test. One of those tests is for my drawcord which is made in the USA and is 100% cotton. Why I need to spend money on testing for drawcord that is 100% cotton is beyond me. These tests are putting small businesses, the backbone of our country, out of business. I am sure you have heard the loud complaints from the small companies that make up the website Etsy.com. At any given time, like a lot of small businesses, I have about $800 in my Kidzsack checking account. That's it. I am barely staying afloat but have big dreams for a prosperous future...one that will employ lots of stay at home moms...one that will furnish children's hospitals with a Kidzsack take home bag.

I want to reach out to the members that are making up the CPSIA law that it should be required for the distributor of components to pay for testing. For example, My drawcord company is making millions of dollars. It is nothing for them to spend a $100 on a lead test and then post that certificate of compliance on their website for EVERYONE to copy and paste and provide to their retailers. Otherwise, every manufacturer of goods is going to have to do the same exact repetitive testing on their drawcord, spending hundreds of wasted dollars when instead the drawcord distributor could have provided the test to begin with. Does this make sense?

I am a small start up, and as a courtesy, I think it should be mandatory for the DISTRIBUTOR of COMPONENTS to provide testing. This provides them with great exposure as well because they are being recognized as a safe company...no lead involved. Hopefully I have explained this in a way that isn't confusing. It is extremely important that the forces that make up these laws talk to business people, small start ups like me, before they put these laws into place. Thx, Tina

Tina Hill
Kidzsack
PO Box 492
West Newbury, MA 01985
Tina@kidzsack.com
www.kidzsack.com
978-314-4875

199

**Stevenson, Todd**

**From:** Julie Rebboah [mail@lightningbuglearning.com]
**Sent:** Thursday, January 29, 2009 1:30 PM
**To:** Lead Exclusions
**Subject:** Small Business Concerns

Dear Representatives,

I believe in the American dream! In March 2008, my husband and I launched a new small business called Lightning Bug Learning. We are an independent educational publishing company that creates books, flash cards and educational games to help children learn to read and write with ease. Our products are geared toward children under the age of twelve, which makes us required to comply with the new CPSIA laws.

I am also a parent of young children, ages 2 and 4. I wholeheartedly agree that stricter regulation and enforcement of children's product safety is essential. The problem that I have, as a small business owner is that 1) Ordinary books should be excluded from testing. There is no proof that books have ever caused lead poisoning. 2) I believe that our suppliers should be responsible for testing. It is more financially feasible for a book or flash card printer to test their paper stock, and verify that their lamination contains no lead or pthalates and send certificates of compliance to the small businesses who order from them! It makes no sense to require testing of the same paper supply. My recent bill for testing one batch of books and two sets of flash cards was $1150! How can I absorb that cost and still remain in business? I have less than $200 in my business checking account! 3) If you're going to require that the small businesses are responsible for testing costs, give us a dollar for dollar tax credit for testing costs. I believe that this should apply only to companies that qualify as an S-Corp.or the equivalent for an LLC. It woud help us stay in business, employed, and in compliance.

Thank you
for your
consideration,

--
Julie Rebboah
President
Lightning Bug Learning Corp.
Local (503) 473-4590
Toll Free (877) 695-7312
www.lightningbuglearning.com
Education For A New Generation! TM

200

**Stevenson, Todd**

**From:** marionscott77@ameritech.net
**Sent:** Thursday, January 29, 2009 3:19 PM
**To:** Lead Determinations
**Subject:** 'Section 101 Determinations of Certain Materials or Products NPR, Comments

In the interest of saving time, I will bullet my comments with explanations. Much thought, money and energy have been put into my requests. As with many small business owners, my family's financial situation depends on your actions as well as the future of my business.

- **Exempt all non-screenprinted textiles and textile-type substrates from lead and/or phthalate testing requirements**. Fabric, thread, elastic and other components do not inherently contain lead nor do the dyes used to color these items. Moreover, many manufacturers wash all components prior to construction of units. XRF testing on all substrates used in my products came to a total of 10ppm. Obviously not a risk for anyone.
- **Accept supplier testing results.** Why should business owners be forced to duplicate supplier testing? Many of our suppliers already test for lead. It is much more cost-effective for suppliers to test large quantities of the same substrate than for business owners to redo that same testing on a much smaller scale. In fact, it is a ridiculous waste of time and resources.

- **Accept component testing for all substrates, eliminate unit testing requirements.** I recently conversed with the consumer products testing department at Intertek Labs. Do you know how they test each finished unit? BY COMPONENT. Yes, they test each component within each unit to come up with the final lead content. They do not "melt" the unit down and take the lead content of the "melt". If one of the largest labs in the world uses component testing, then why the unit-testing requirement? From unit-to-unit I have only two variables, both of which individually have been tested to NOT contain lead.
- **Regulate costs of testing.** Why is the cost of testing being left up to the free market? I was quoted $30 for a lead substrate test six months ago. This week, the same test at the same company was quoted to me at $80. Not only that, but testing in China now costs about 50% less than testing in the US. Now...which labs do you think will prove more reliable, even if certified by the CPSC?
- **Accept XRF testing or reduce the cost of testing.** Although I would prefer many non-leaded substrates to be excluded from lead testing, there are cheaper testing methods which are currently not accepted by the CPSIA.

**In conclusion:** I paid $100 for my entire spring line's components to be lead-tested via XRF by an established independent organization. The resulting hike in product cost? About $1 per item. The total lead content? 10ppm.

To comply with the unit testing required in August I was quoted $560 per product by Intertek. The resulting hike in product cost? **$22** per item! Total lead content? still 10ppm.

If this law is not changed I will go out of business by August 2009. My daughter will not be able to attend (basic, park-district) preschool. My family will be at least $5,000 poorer next year. And Congress and Henry Waxman can be proud that they helped further the US recession without any increase in consumer safety.

Sincerely,
Marion Scott
Owner, Close2Me
www.marionscott77.etsy.com

201



# Environments

## FACSIMILE

DATE: 1-30-09

PAGES: 1 page(s) including cover

TO: CPSC

FROM: Mary Campbell
ext. 450
mcampbell@eichild.com

RE: CPSIA

Environments, Inc. runs a small sewing plant. We make small runs of soft goods for children — bibs, sheets, soft toys, dress-ups, etc.

Compliance with CPSIA will force us to close our doors even though we know our products are completely safe for children. It would not be economically feasible for us to comply with all testing required and record keeping.

Sincerely,
Mary Campbell
Director of R&D

(301)504-0127

**Environments, Inc.** 501 Carteret Street, Post Office Box 1348, Beaufort, SC 29901-1348
843-524-2525 PH • 843-524-0137 FX • environments@eichild.com

202

**Stevenson, Todd**

**From:** Kathleen & Eric [messnerk001@hawaii.rr.com]
**Sent:** Friday, January 30, 2009 3:35 AM
**To:** Lead Determinations
**Subject:** CPSIA

Dear Sir or Madame,

I am contacting you regarding this new law that is about to be implemented. As I am sure there have been numerous emails
regarding the impact that CPSIA will have on small businesses I, too, would like to voice my concerns.

I am a stay at home mother with a small handcraft business on the side. I make children's shopping cart covers, bibs, burp
cloths and clothing. As I read in CONSUMER PRODUCT SAFETY COMMISSION 16 CFR Part 1500 I see that cotton and natural fibers may be excluded from this law, which is a relief. However, most crafters who make clothing or children's accessories use metal or resin snaps, zippers, elastic, polyester fiber fill, and poly-cotton thread. There are also crafters who use wood to make children's pull toys, blocks, etc.

The CPSIA, although initiated with great intent, is possibly going to destroy most of our handcraft businesses. The majority
of us can not afford the testing you are asking for. If you think about it it will affect your child's shoes, the zipper on his or her jeans, the buttons on his shirt, that elastic band holding up a ponytail and even corrective eyeglasses. Please consider
amending this law and broadening the exclusions. As it stands now WE will suffer the most.

As a parent I am concerned about the toys my child plays with. I can guarantee that most parents would prefer to buy handmade toys from amazing crafters in the U.S. over the mass produced, tainted plastic toys that started this whole issue to begin with.

Again, please consider the effect that CPSIA will have on U.S. crafters. As we are all suffering in this hard economic time, this
will surely hurt those of us who need this second income.

Sincerely,
Kathleen Geiger

January 30, 2009

Kris Hatlelid, Ph.D., M.P.H.
Toxicologist
U.S. Consumer Product Safety Commission
4330 East West Highway
Bethesda, MD 20814-4421

Dear Dr. Hatlelid:

Thank you for your letter of January 27 that contains questions as a follow-up to our January 22 meeting on lead and textiles. Please include this response as part of the docket for this rule-making.

You asked us to provide you in writing the percentage of the children's apparel industry that the testing data represents and to advise whether the testing is representative of the entire industry, or a segment of the industry. We consulted with stakeholders and trade associations representing the entire supply chain, including the experts represented at the January 22 meeting, and wish to provide the following.

It is impossible to determine the exact percentage of the children's apparel industry that the testing data represents because the mix of items changes constantly with changes in seasons and styling. However, the data we presented on January 22 covers more than 3000 diverse garments reflecting a wide range of natural, man-made and blended fiber fabrics, fabric constructions, other textile components (like threads, trims, labels, and elastics), and processes. As each of the retail experts testified, these garments represent the scope and variety of children's garments they sell. Since every garment can not be tested, these tests essentially are representative tests that cover all the variety of children's garments sold.

Moreover, we are not aware of any companies who are not actively testing, and finding substantially similar results. Many examples of additional test data were reflected in hundreds of other test results and testing summaries separately provided to the Commission on January 22 and on other dates, both before and since. In addition, please find attached an additional letter from a Childrenswear manufacturer substantiating these comments and results.

Moreover, the test data, and the information provided describing the science that explains the test data, provides valuable information showing the absence of lead in fabrics, when used in non garment applications as well.

You also asked us to describe the test processes that are currently in place to ensure that raw materials or components do not contain lead.

As we described, neither the raw materials nor the textile manufacturing processes introduce lead or contribute to lead exposures from textile materials. Nevertheless, there are a number of programs and processes that stakeholders throughout the supply

chain use with respect to chemical management for various substances, including lead, that provide additional safeguards. These include:

- Material Safety Data Sheets and other technical information are supplied to textile manufacturers by their chemical suppliers for the chemicals they use in the textile manufacturing processes. Preparation for dyeing and finishing essentially removes all non-fiber chemicals, including metals. No chemicals intentionally containing lead are used for coloration or finishing of apparel textiles. However, there can be traces of lead as a trace contaminant with the commercial dye formulation (i.e., the commercial dye consists of the colorant plus other materials referred to as "diluents") but lead is never part of the dye/colorant molecule that colors or remains with the fiber and is retained by the fiber/fabric. Data were presented at the Jan 22 meeting by Audie McDearis, Coats & Clark, which showed that even if trace amounts of lead were in a commercial dye formulation, wet chemistry tests of the dyed threads still yield a non-detect lead level at the thread level. ETAD, which represents about 80% of the world's dye manufacturers, recommended limits for Pb are 100 ppm. If Pb levels exceed these limits, ETAD members report the content in MSDS. [The ETAD information is contained in Dr Tucker Helmes' notes attached to Dr Wakelyn's comments/note.]

  Certification programs, such as Oeko-Tex Standard 100 for textile products or those in place for organic textiles [such as the Global Organic Textile Standard (GOTS)]. Oeko-Tex 100 certification requires dyes to contain less than 100 ppm lead.

  Restricted Substance Lists (RSLs) and other vendor requirements that retailers and brands maintain that their suppliers must comply with. The RLSs require lead to be less than 100 ppm in the chemicals used on apparel textile materials.

Through a combination of inherently lead free components and processes, and procedures that control the introduction of substances and materials into the textile processing operations, the supply chain is able to effectively control against lead and manage related substance issues.

Thank you.

Sincerely,

American Apparel & Footwear Association (AAFA)
American Fiber Manufacturers Association (AFMA)
Craft Yarn Council of America
ETAD – The Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers
INDA, Association of the Nonwoven Fabrics Industry
National Cotton Council (NCC)
National Council of Textile Organizations (NCTO)

National Retail Federation (NRF)
National Textile Association (NTA)
Retail Industry Leaders Association (RILA)
Secondary Materials and Recycled Textiles (SMART)
Specialty Graphic Imaging Association (SGIA)
Sporting Goods Manufacturers Association (SGMA)
The Hosiery Association (THA)
Travel Goods Association (TGA)
U.S. Association of Importers of Textiles and Apparel (USA-ITA)

**Robar Inc.** 131 West 33rd Street, Suite 610, New York, NY 10001

Mr. Stephen Lamar
Executive Vice President
American Apparel & Footwear Association (AAFA)
1601 N. Kent Street, 12th Floor
Arlington, VA 22209

1/28/2009

Dear Steve,

Re Dr. Hatlelid's memo requesting information on the significance of the data provided by Walmart, JC Penney, and the Children's Place during the January 22nd CPSC meeting:

Robar Inc. has conducted third party wet chemical testing for lead on over 250 styles representative our entire Spring 2009 season. Our product is made expressly for newborn and infant size ranges, and consists of both knit and woven fabrics. The main fabric focus is 100% cotton knit. However, we do include synthetic as well as blended fabrics, and, as mentioned, some woven fabrics. Most of our styles are composed of several fabrics – some have as many as eight different fabrics.

Our test results mirror the results found at Walmart, JC Penney, and The Children's Place. We have not found measurable lead levels in any fabric substrate regardless of the fabric type, content, or finishing methods. The test identification numbers and dates are mentioned on the general compliance certificates for each style, and are available on our web site: www.robarinc.com.

After listening to the webcast of the January 22nd meeting, it is easy to understand why we are all getting the same results on these tests: There is no reason whatsoever, nor any physical or chemical method, to introduce lead into fabric. Fabric should be excluded from lead testing for children's apparel. Component testing will not only safeguard our products, but will allow us as manufacturers time in the process to insure their safety. It is normal best practice to look for issues as early as possible in the manufacturing process. That is why we all do performance fabric testing **before** that fabric is cut into panels to be sewn into garments. Once the fabric is cut, it's impossible to make any corrections/improvements. The same holds true for the lead issue. Once the garment is completely made it is too late to do anything about lead content other than destroy the garment.

Sincerely,

Brian L. Kennedy
VP Sourcing

U.S. CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY, BETHESDA, MD 20814

Kristina Hatlelid, Ph.D., M.P.H.
Toxicologist
Directorate for Health Sciences

Tel: 301-504-7254
Fax: 301-504-0079
Email: khatlelid@cpsc.gov

*Via e-mail and regular mail*

January 27, 2009

Mr. Stephen Lamar
Executive Vice President
American Apparel & Footwear Association (AAFA)
1601 N. Kent Street, 12th Floor
Arlington, VA 22209

Ms. Stephanie Lester
Vice President, International Trade
Retail Industry Leaders Association
1700 N. Moore Street, Suite 2250
Arlington, VA 22209

Re: CPSC public meeting

Dear Mr. Lamar and Ms. Lester:

The CPSC staff appreciates the participation of the apparel and retail industries in our public meeting last week providing clarification on textile and apparel production and product testing. *

We have a few follow up questions regarding the data provided, especially concerning textiles and fabrics. In particular, to assess the significance of the data provided, it would be helpful for you to provide in writing the percentage of the children's apparel industry that the testing data represents; whether the testing is representative of the entire industry, or a segment of the industry, and why; and the test processes that are currently in place to ensure that raw materials or components do not contain lead.

The staff welcomes any additional information or clarifications that you want to provide in writing. As we mentioned during the meeting, it would be helpful for the staff to receive your comments as soon as possible, but no later than February 17, 2009, which is the close of the public comment period for the proposed rules.

* These comments are those of the CPSC staff, have not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.

We will include this letter and your responses in our docket on our pending rulemaking at Sec101Determinations@cpsc.gov.

Sincerely,

/s/

Kristina Hatlelid, Ph.D., M.P.H.

204

## Stevenson, Todd

**From:** Falvey, Cheryl
**Sent:** Monday, February 02, 2009 5:16 PM
**To:** Stevenson, Todd; Kim, Hyun; Saltzman, Lori; Hatlelid, Kristina; Recht, Joel; Toro, Mary
**Subject:** FW: Tests on "ordinary" paper-based book products
**Attachments:** L88641-AWAL-Testing Report 01.26.09.pdf

More test data on books for the 101 natural materials exemption rulemaking -- Todd can you include this in the docket.

**From:** Barry Evans [mailto:BarryE@covenant-lds.com]
**Sent:** Monday, February 02, 2009 4:36 PM
**To:** Falvey, Cheryl
**Subject:** RE: Tests on "ordinary" paper-based book products

Cheryl,

Let me applaud CPSC's delay in the deadline!!!! As a medium sized publisher, and without further clarity in the regulations for publishers, retailers were demanding excessive requirements to keep products on the shelves.

We all want safe products for our children and grandchildren, safety in children's products should always be at the forefront of the creative and manufacturing processes, but this new regulation cause panic for most retailers due to heighten requirements and confusing interpretation, that they felt put them at some liability risk, and in our case on products that carry insignificant levels of any toxins or hazardous substances.

Since you are seeking additional information from publishers I am including recent tests on the type of books and (paper-based) games we manufacture for the 12 and younger genre. These products represent 95% of our paper-based products and were all produced in China. Our Chinese partners are well aware of the concerns for children's products and have always met ASTM requirements and testing policies were applicable.

The products represented here are board books, hardback books, soft cover books, and card games in metal boxes.

We hope the CPSC will continue to review the exemption of "ordinary" book products from the lead testing requirements of this section. You will see from the tests complete just last week that none of the products had ANY detectable traces of lead in them.

Barry Evans
Covenant Communications, Inc.

**From:** Falvey, Cheryl [mailto:CFalvey@cpsc.gov]
**Sent:** Friday, January 23, 2009 10:53 AM
**To:** Barry Evans
**Subject:** RE: Clarification on December 23, 2008 opinion to Assoc. of Am. Publishers

All books intended or designed primarily for children must comply with the 600ppm limit on lead in substrate. The publishing industry is seeking an exemption for "ordinary books" but the Commission has not yet made a determination on that request so for now the books need to comply with the lead limit.

**From:** Barry Evans [mailto:BarryE@covenant-lds.com]
**Sent:** Friday, January 23, 2009 11:17 AM
**To:** Falvey, Cheryl
**Subject:** Clarification on December 23, 2008 opinion to Assoc. of Am. Publishers

Dear Ms. Falvey,

I am the COO of a medium-sized publisher in the Western U.S. and have a question in regard to the opinion you gave Mr. Alder at AAP.

On page 2 of your memorandum the first paragraph states that, "*CPSIA lead limits of section 101 do not apply to ordinary books intended for readers of all ages, including children . . . and do not require third-party testing of any kind.*"

In the next paragraph, the first sentence seems to follow the above, "*Second, with regard to those books that are intended or designed primarily for children 12 years of age or younger, ordinary books are not subject to the ban on lead-in-paint. As has always been the case, printing ink is not considered a surface coating under the lead-in-paint ban (16 C>F>R> Part 1303) because ink by its nature soaks into paper or cardboard and becomes part of the substrate.*"

The next sentence seems to counter [or cancel] the first, "*However, a book intended or designed primarily for children would need to meet the new lead content limit of 600 ppm and subsequently 300 ppm established by the CPSIA. Printing ink becomes part of the substrate of the book for purposes of evaluating its lead content.*"

It seems that in the first part of the memorandum you are making the case that an ordinary [paper-based] book intended primarily for children does not need testing, then later point out that an ordinary book would need testing if it has some inherent play value (e.g., paper cut-outs or vinyl bath books) and constitutes a toy or has toy like features, but the second part of the paragraph noted above seems to change your opinion to be that all books for children are subject to testing.

May we ask for further clarification, is it your opinion that all books, primarily intended for children are subject to testing, or only those that are non-paper based, have some inherent play value, constitute a toy or have toy like features?

Thank you in advance for a reply to this clarification.

Barry Evans
COO
Covenant, a Deseret Book Company

AMERICAN WEST ANALYTICAL LABORATORIES
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e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

**CLIENT:** Cash Account **Contact:** Barry Evans
**Lab Order:** L88641
**Project:** Covenant Communications, Inc./Children's Pro **Date Received:** 1/26/2009

# Lead

| Lab Sample ID | Sample ID | Date Sampled | Date Analyzed | Method Used | Units | Reporting Limits | Analytical Result | |
|---|---|---|---|---|---|---|---|---|
| L88641-01A | CTR-bkb-559-8 | 1/26/2009 | 1/29/2009 1:43:00 PM | 6010B | mg/kg-wet | 23 | < 23 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-02A | I Will Go - hbk-627-4 | 1/26/2009 | 1/29/2009 1:48:00 PM | 6010B | mg/kg-wet | 21 | < 21 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-03A | I Feel - bkb-546-4 | 1/26/2009 | 1/29/2009 1:53:00 PM | 6010B | mg/kg-wet | 22 | < 22 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-04A | Aye-game-102-6 (box) | 1/26/2009 | 1/29/2009 1:57:00 PM | 6010B | mg/kg-wet | 25 | < 25 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-05A | Aye-game-102-6 (cards) | 1/26/2009 | 1/29/2009 2:01:00 PM | 6010B | mg/kg-wet | 22 | < 22 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-06A | BOM Battle - Game-401-0 (box) | 1/26/2009 | 1/29/2009 2:06:00 PM | 6010B | mg/kg-wet | 24 | < 24 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-07A | BOM Battle - Game-401-0 (cards) | 1/26/2009 | 1/29/2009 2:10:00 PM | 6010B | mg/kg-wet | 23 | < 23 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-08A | I Am -bkb-055-5 | 1/26/2009 | 1/29/2009 2:23:00 PM | 6010B | mg/kg-wet | 21 | < 21 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-09A | A is for - bkb-685-4 | 1/26/2009 | 1/29/2009 2:28:00 PM | 6010B | mg/kg-wet | 23 | < 23 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-10A | Blessed - hbk-390-7 | 1/26/2009 | 1/29/2009 2:32:00 PM | 6010B | mg/kg-wet | 24 | < 24 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-11A | It Came - game-820-x (box) | 1/26/2009 | 1/29/2009 2:36:00 PM | 6010B | mg/kg-wet | 24 | < 24 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-12A | It Came - game-820-x (cards) | 1/26/2009 | 1/29/2009 2:40:00 PM | 6010B | mg/kg-wet | 24 | < 24 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

**CLIENT:** Cash Account **Contact:** Barry Evans
**Lab Order:** L88641
**Project:** Covenant Communications, Inc./Children's Pro **Date Received:** 1/26/2009

# Lead

| Lab Sample ID | Sample ID | Date Sampled | Date Analyzed | Method Used | Units | Reporting Limits | Analytical Result | |
|---|---|---|---|---|---|---|---|---|
| L88641-13A | I Am - hbk-933-4 | 1/26/2009 | 1/29/2009 3:28:00 PM | 6010B | mg/kg-wet | 25 | < 25 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-14A | Reverant - bkb-951-6 | 1/26/2009 | 1/29/2009 3:32:00 PM | 6010B | mg/kg-wet | 25 | < 25 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-15A | Savior - bkb-986-2 | 1/26/2009 | 1/29/2009 3:36:00 PM | 6010B | mg/kg-wet | 25 | < 25 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-16A | Bee - game-554-5 (box) | 1/26/2009 | 1/29/2009 4:43:00 PM | 6010B | mg/kg-wet | 25 | < 25 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-17A | Bee - game-554-5 (cards) | 1/26/2009 | 1/29/2009 3:50:00 PM | 6010B | mg/kg-wet | 22 | < 22 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-18A | Fish - game-378-5 (box) | 1/26/2009 | 1/29/2009 4:47:00 PM | 6010B | mg/kg-wet | 25 | < 25 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-19A | Fish - game-378-5 (cards) | 1/26/2009 | 1/29/2009 3:54:00 PM | 6010B | mg/kg-wet | 22 | < 22 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-20A | Daughter - bkb-054-8 | 1/26/2009 | 1/29/2009 3:58:00 PM | 6010B | mg/kg-wet | 24 | < 24 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-21A | Nephi - game-576-6 (box) | 1/26/2009 | 1/28/2009 8:03:00 PM | 6010B | mg/kg-wet | 24 | < 24 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-22A | Nephi - game-576-6 (cards) | 1/26/2009 | 1/28/2009 8:07:00 PM | 6010B | mg/kg-wet | 24 | < 24 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-23A | I Know - game-464-5 (box) | 1/26/2009 | 1/28/2009 8:18:00 PM | 6010B | mg/kg-wet | 25 | < 25 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |
| L88641-24A | I Know - game-464-5 (cards) | 1/26/2009 | 1/28/2009 8:22:00 PM | 6010B | mg/kg-wet | 25 | < 25 | * |
| | ** - The reporting limits were raised due to sample matrix interferences.* | | | | | | | |

205

**Stevenson, Todd**

**From:** Alan Bell [abell@tbg.riogrande.com]
**Sent:** Monday, February 02, 2009 6:36 PM
**To:** Lead Exclusions
**Cc:** Rich Youmans (E-mail)
**Subject:** Section 101(b) Exclusions

Our company distributes materials and supplies to the jewelry industry. We are deeply concerned about the impact of CPSIA on our customers who work in precious metals and with precious and semi-precious gemstones, particularly small artisans and independent craftspeople. Unless the materials they work with, which by nature contain no lead, are exempt, the burden of compliance may overwhelm them. In the case of sterling silver, karat gold, platinum and palladium certification requirements serve no purpose and protect no one, as none of these materials contain lead by nature.

In the case of naturally occurring gemstones, both the public and the CPSC would be better served by specifically including any suspect materials, and excluding all others, the vast majority of which, by nature contain no lead.

Please do not burden our industry and CPSC with unnecessary testing and compliance rules around these materials. No one benefits.

Respectfully,

Alan Bell, Managing Director
The Bell Group / Rio Grande

## Stevenson, Todd

**From:** Hugh Bell [Hbell@tbg.riogrande.com]
**Sent:** Monday, February 02, 2009 7:18 PM
**To:** Alan Bell; Lead Exclusions
**Cc:** Rich Youmans (E-mail)
**Subject:** RE: Section 101(b) Exclusions

Looks good.

-----Original Message-----
From: Alan Bell
Sent: Monday, February 02, 2009 4:36 PM
To: 'sec101Exclusions@cpsc.gov'
Cc: Rich Youmans (E-mail)
Subject: Section 101(b) Exclusions

Our company distributes materials and supplies to the jewelry industry. We are deeply concerned about the impact of CPSIA on our customers who work in precious metals and with precious and semi-precious gemstones, particularly small artisans and independent craftspeople. Unless the materials they work with, which by nature contain no lead, are exempt, the burden of compliance may overwhelm them. In the case of sterling silver, karat gold, platinum and palladium certification requirements serve no purpose and protect no one, as none of these materials contain lead by nature.

In the case of naturally occurring gemstones, both the public and the CPSC would be better served by specifically including any suspect materials, and excluding all others, the vast majority of which, by nature contain no lead.

Please do not burden our industry and CPSC with unnecessary testing and compliance rules around these materials. No one benefits.

Respectfully,

Alan Bell, Managing Director
The Bell Group / Rio Grande

206

HSLDA
*Advocates for Homeschooling*

**Michael P. Farris, Esq.**
Chairman

**J. Michael Smith, Esq.**
President



February 4, 2009

Nancy Nord
Acting Chairman
U.S. Consumer Product Safety Commission
4330 East West Highway
Bethesda, MD 20814

RE: How the CPSIA Will Harm Family Businesses

Dear Chairman Nord:

We would like to thank you for the one-year stay of relief that you recommended to Commissioner Moore, giving countless small family businesses the ability to continue their work securely for another year. While this stay is a relief for many families, we are sure you understand that their businesses still need the assurance of permanent solutions, if they are to engage in long-term planning and investment for their futures. As advocates for the home schooling family (which frequently requires a home-based income to supplement the work of one working parent), the Home School Legal Defense Association is uniquely concerned about what lies beyond the year-long extension.

HSLDA has received over 300 letters, emails, and phone calls from family businesses. For example:

- Paul and Dody are a low-income homeschooling couple from Arkansas who invested in livestock to make children's products out of wool. All those plans have been put on hold until a permanent exemption can be made for natural products like their own. "I estimate we are out a couple thousand dollars," Dody said, before the deadline was extended a year. "Not a lot compared to other, bigger, small businesses, but a lot for a mother of 5 with one on the way. In 2007 we made only $6,000.00 between the two of us." Homeschooling in Arkansas farm country where few jobs are available, Paul and Dody will have a difficult time turning to other work.

- Lucy, a working and homeschooling mother, has decided to shut down her business selling homemade monogrammed baby gifts. "I simply cannot afford

the redundant testing on already safe materials that will cost me anywhere from $575 to more than $4,000 per finished item," she said. One $18 item, for example, will cost her $1,450 in order to test.

- Monica, a homeschooling mom, makes quilts for children, using fabric that is lead free, thread that is lead free, and batting that is lead free. She purchases these items from large-scale manufacturers that are well-equipped to test the original materials for lead; but as a small-business owner, she is required to test her materials again after she has finished assembling a new product out of them. Monica may have to shut down her business as a result.

- Kate is a homeschooling mother who is concerned about her family's business of creating educational kits for homeschoolers. Kits contain unique items (like authentic antique coins) that would have to be tested separately and destroyed in the process. Besides causing the destruction of their products, the costs of testing would add up to $92,525; and every fourth kit would have to be tested. Without serious changes to the current interpretation of the CPSIA, Kate and her family will be deprived of their home's sole source of income.

**Solutions**

We believe that the following recommendations will protect small family home-based businesses permanently. The sooner these changes are announced, the sooner family businesses will be able to start investing in their futures.

1. **Only require testing for raw materials, not final products.** It makes no sense for a product to be tested for lead or phthalates, when it is assembled from raw materials that are free from lead and phthalates. So, if a single supply of plastic is used to create a thousand toys, the plastic manufacturers (not the toymakers) should be required to test their material. In the end, the plastic will only have to be tested once, rather than thousands of times, or once for each individual product. This will protect family businesses and save the economy as a whole from immeasurable waste.

2. **Exempt books from testing.** Books have still not been permanently exempted from the testing required by the CPSIA. This will cause an impossible burden on education of the young, driving countless educational publishers out of business. Many family businesses who self-publish will be forced to close their doors. Additionally, many homeschool families who rely on these family businesses for their homeschool needs will be forced to look elsewhere at great cost to themselves.

3. **Define "reasonable testing program" (CPSIA, §102(a)(1)(A)) to protect family businesses.** Family businesses simply cannot be held responsible for testing as rigorously as mandated in the Consumer Product Safety Improvement Act. Without an appropriate definition of "reasonable testing program," family

businesses throughout America will be forced to shut their doors. We would recommend that §102 define a "reasonable testing program" to include one or all of the following:

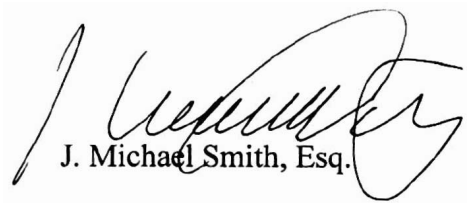
- **a.** That the family business can demonstrate through certificates that all components are in compliance with the lead and phthalate limits; or
- **b.** That the item is made of natural and organic products; or
- **c.** That the item is made of raw materials that have been tested and certified to be in compliance with the lead and phthalate limits; or
- **d.** That every family business is given a one-time "good faith exemption," automatically pardoning them from an accidental violation of the CPSIA, if they can show their mistake was made in good faith.

4. **Permanently extend the testing exemption for natural and organic products.** We would like to thank Commissioner Moore and Chairman Nord for supporting the temporary testing exemption the CPSC created for clothing and other natural materials. Please make this testing exemption permanent as soon as possible, so that manufacturers can confidently invest in their businesses for the long-term.

5. **Provide small businesses with a compliance guide.** HSLDA has talked with countless family businesses that may be exempted from certain aspects of the CPSIA, but do not know it because the regulations are so complex. A compliance guide will help small businesses understand whether and how the CPSIA applies to them.

On behalf of our 85,000 plus member families, and the thousands who operate family businesses out of their homes, thank you for considering these recommended solutions. We look forward to working together to protect our children, as well as small family businesses.

Sincerely,



J. Michael Smith, Esq.

**Stevenson, Todd**

201

**From:** charlotte [roundandround@mac.com]
**Sent:** Friday, February 06, 2009 3:55 PM
**To:** Lead Determinations
**Subject:** Materials to be exempted from CPSIA

Dear Sirs,
I am writing to suggest specific language that will exempt reclaimed textiles from the testing requirements of the CSPIA.

My business, Wheee!, is one of the myriad domestic home businesses making safe lead and phthalate free clothing for children. In order to stay in business after the CSPIA goes into effect, we need a specific exemption for reclaimed textiles. There are many small business like our that re-manufacturer new products form reclaimed clothing such as tee-shirts and sweaters. We are the businesses that salvage waste clothing and fabrics and transform these materials into useable products.

We cut our garments from factory irregular tees from many large companies like Fruit of the Loom, Gildan, etc. The raw materials we use from garments that are irregular in their construction only, not in their chemical contents. Since we buy our textiles through apparel industry off price resellers, the fabric is at least one season old by the time we get our hands on it. This material was originally manufactured to meet all government laws and guidelines. The textile material we use has never been shown to contain either lead or phthalates.

Because our raw materials would have met existing standards at the time of their original manufacture, testing of these reclaimed textiles should not be required.

Sincerely,

Charlotte MacDonald, Owner
Wheee!
Everyday Play Gear
503-206-7863

208

**Stevenson, Todd**

**From:** Shan Aithal [shan_aithal@STULLER.COM]
**Sent:** Monday, February 09, 2009 11:20 AM
**To:** Lead Determinations
**Subject:** Lead levels in precious metals

To Whom It May Concern:

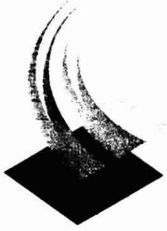
It has been established in the jewelry manufacturing that lead levels in excess of 100 PPM in the precious metal alloys used in the jewelry will lead to brittleness of the alloy. The detriment to the mechanical properties is a result of lead migrating to the grain boundaries of the jewelry alloys and weakening of the microstructure. So, fortunately for the precious metal jewelry manufacturer, the brittleness of the product due to lead contamination (in excess of 100 PPM) will make the jewelry prone to severe cracking and make it impossible to continue to work on the jewelry product.

So as a routine, most jewelry manufacturers make sure that the elemental metals (like gold, copper, silver, nickel and zinc) used in the manufacturing of jewelry alloys are 99.99% pure or better and in addition, they contain lead in levels less than 25 PPM or less.

At Stuller, Inc. we have gone a step ahead and test routinely the lead levels in our 14 karat yellow and 14 karat white gold alloy grains and found that the lead levels are consistently tested to be "ND" or less than 18 PPM according to the testing laboratory. We have also tested several batches of polished final product (that has gold solder in it) and found that the lead levels are less than 50 PPM.

So, as a degreed metallurgist, I would say that the children's precious metal products (10 karat or higher) that enter the market as a functional product will have to be necessarily contain lead much below the 100 PPM limit and should therefore be excluded from testing and certification for total lead. I will agree that these products should adhere to the lead limits imposed on them.

Best Regards,
Shan Aithal, Ph.D.
Director of Technology
Stuller Inc
302 Rue Louis XIV
Lafayette, LA 70508
(337) 262-7700 ext 3615
www.stuller.com



**THE ENAMELIST SOCIETY™**

*Connecting you to the enameling world*

209

February 11, 2009

Office of the Secretary
Consumer Product Safety Commission
Room 502
4330 East West Highway
Bethesda, MD 20814

Dear Secretary:

This letter is written to make comments on the "Section 101 (b) Exclusions" in the Consumer Product Safety Improvement Act.

It is the request of The Enamelist Society to include porcelain enamel (can also be called vitreous enamel or enamel) on the list of excluded materials that "by their nature contain little or no lead or risk of exposure." Porcelain enamel is a boro-silicate glass coating on metal – predominantly on copper, silver, gold or platinum for jewelry. While today's compositions may or may not contain lead in the glass structure, that lead cannot normally be extracted from the porcelain enamel by children or adults. The Enamelist Society is taking the position that an analysis for total lead content is the wrong way to evaluate the safety of a glass coating on metal, porcelain enamel – the important criterion is whether any lead can be extracted by the consumers of jewelry in normal use. There is no "risk of exposure" from extraction of any lead from porcelain enameled jewelry when it is worn, i.e. through contact with the skin. The only possible leaching of lead from boro-silicate glass (porcelain enamels) occurs in the presence of strong acids over significant lengths of time.

Dating back to the 1970's, many public and private entities tested glazed ceramics and porcelain enamels for lead release to be sure that they were safe for use in home cooking and food service. In 1994 an American Society for Testing and Materials (ASTM C 738) standard test was adopted; this standard test determines the amount of lead that can be extracted from a glazed ceramic surface – the surfaces of porcelain enamels are the same as glazed ceramic surfaces except that the glass coating is on a metal (not ceramic) substrate. Specifically, the ASTM C 738 requires that the glass (glaze or porcelain enamel) surface be placed in contact with 4% acetic acid for 24 hours at a temperature of 68 – 74°F. The acid solution is then evaluated for lead content by atomic absorption spectroscopy. Thus, it is the amount of lead that can be leached out of the glass (porcelain enamel) that represents any health risk, not the total lead content. This same argument applies to things like Waterford crystal stemware, Wedgewood bone china, Le Creuset porcelain enameled cookware, etc.

When properly manufactured and fired so that the appearance of a piece of jewelry is suitable for sale, any lead is chemically bound in the boro-silicate glass structure. This porcelain enameled jewelry, when it contains lead, will not pose a health risk to children or adults as it will pass tests like ASTM C 738.

**The Enamelist Society**
PO Box 920220, Norcross, GA 30010

Phone 770-807-0142 Fax: 770-676-9368 www.enamelistsociety.org info@EnamelistSociety.org

The Enamelist Society has many members who produce porcelain enameled jewelry and some of it may be sold or given to children. If the CPSC rules do not exclude porcelain enamels, these rules will likely pose too heavy a financial burden on the many artists and craftspeople who make a living producing porcelain enameled jewelry. The cost and time involved in lead testing all pieces of jewelry would financially damage most of our members as they are small or single proprietorship businesses. Thus, domestic production of porcelain enameled jewelry that might be sold to children would likely cease.

As a society that advocates for many of these artists, the Enamelist Society can assure the CPSC that proper porcelain enameled jewelry will pass lead leaching tests. The FDA requirements for maximum lead release are generally less than 5 ppm. Based on our many years of experience with porcelain enamels, domestically produced jewelry by our members would exhibit lead release values in compliance with FDA limits. It is our opinion that lead in the boro-silicate glass structure of properly produced porcelain enamels for use in jewelry today poses no significant "risk of exposure" to children or adults.

Thank you for your attention to this request and please feel free to contact us should you have any questions, require further information or need any clarification.

Sincerely,

Cullen L. Hackler
Managing Director

CC: The Honorable Saxby Chambliss
The Honorable Johnny Isakson
The Honorable John Linder
Manufacturing Jewelers and Suppliers of America (MJSA)

210

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February 12, 2009

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Office of the Secretary
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RE: **Section 101 Determinations of Certain Materials or Products NPR**
**Section 101 Request for Lead Content Determination**

Dear Dr. Hatlelid and Mr. Stevenson,

The submission of this document is intended to serve three purposes:

First, it is intended to respond to Dr. Hatlelid's letter to me, dated January 27, 2009, requesting further information relevant to the book publishing and printing industries' presentation to CPSC staff on January 22, 2009 concerning the factual and scientific bases for concluding that "ordinary books"[1] inherently do not contain lead in amounts that would violate the total lead content limits prescribed for children's products in the Consumer Product Safety Improvement Act (CPSIA).

Second, it is intended to serve as Comments submitted in a timely manner on behalf of the signatories, *i.e.*, the Association of American Publishers (AAP), individual publishers of children's books, and the vendors of print, manufacturing and supply services to such publishers, in response to the pending Notice of Proposed Rulemaking concerning "Children's Products Containing Lead; Proposed Determinations Regarding Lead

[1] The term "ordinary books" in this submission refers to paper-based, printed books that are designed or intended primarily for children 12 years of age or younger. The term does not include so-called "novelty" products such as, for example, plastic-based bath toys or teething products that are made to resemble books in shape and form, or books that have plastic, metal or electronic parts that are not part of the binding and with which children may be expected to interact.

Content Limits on Certain Materials or Products," 74 Federal Register 2433 (daily ed. January 15, 2009).

Third, it is intended to constitute a request for the Consumer Product Safety Commission ("CPSC" or "the Commission") to exercise its general rulemaking authority under Section 3 of the CPSIA to determine that "ordinary books" – as well as the component materials that are representative of those used in the printing and manufacturing of "ordinary books" and other paper-based, printed children's products – do not contain lead in amounts that exceed the prescribed limits for total lead content in children's products under the CPSIA. See "Children's Products Containing Lead; Notice of Proposed Procedures and Requirements for a Commission Determination or Exclusion," Vol. 74 Federal Register 2428 (daily ed. January 15, 2009).

**CPSC Public Meeting: Children's Book Publishing (January 22, 2009)**

On January 22 of this year, representatives from AAP, the nation's leading children's book publishers, the nation's leading book printers and manufacturers, a major ink manufacturer, and the national trade associations of the printing and forest, pulp, paper, paperboard and wood products industries, respectively, ("publishing and printing industries representatives") met at the Commission with key members of the CPSC science staff to discuss the factual and scientific bases for the publishing community's assertion that "ordinary books" designed and intended primarily as children's products inherently do not contain lead in amounts that would violate the prescribed limits for total lead content under the CPSIA, and therefore should be exempt from the CPSIA's related total lead content testing and certification requirements. See CPSC meeting video at http://www.cpsc.gov/about/cpsia/publishers.html.

During the course of that meeting, the publishing and printing industries representatives explained that:

- The individuals assembled by AAP to meet with the CPSC staff represented five of the largest U.S. publishers of children's books (i.e., Scholastic, Random House, Simon & Schuster, Penguin Group USA, and The Walt Disney Company); three of the largest manufacturers and printers of children's books (i.e., RR Donnelley, Quebecor World Publishing Services, and Courier Corporation); one of the two largest manufacturers of commercial printer's inks (i.e., Flint Group); and the national trade associations of the printing and forest, pulp, paper, paperboard and wood products industries (i.e., Printing Industries of America and American Forest & Paper Association, respectively).

- Prior to enactment of the CPSIA, "ordinary books" were historically treated by the Commission as "unregulated products" that were not subject to any mandatory standard or other regulation issued by the Commission, or even to any guidance issued by CPSC staff. Instead, they were subject only to requirements for manufacturers, importers, distributors and retailers to report "dangerous products" (i.e., those containing a defect which could create a substantial risk of

injury to the public) and products involved in multiple cases of civil litigation concerning related deaths or grievous bodily injury, resulting either in a settlement by the manufacturer or a judgment in favor of the plaintiff. **A review of the Commission's website database of such product recalls for "books & accessories" over the past 25 years reveals that, with the exception of lead-based paint used on the spiral metal binding of a journal made in China, none of the recalls involved the component materials or finished product of an "ordinary book."** See http://www.cpsc.gov/cgi-bin/prod.aspx.

- A web site, established by the publishing and printing industries representatives in early December 2008 in support of their initial request to the CPSC General Counsel for an advisory opinion letter confirming that "ordinary books" and paper-based printed children's products are not subject to the CPSIA total lead content testing and certification requirements, see www.rrd.com/cpsia, had recently been supplemented with additional test results, so that it now includes over 150 test results for different finished books and over 150 test results for all major types of component materials, both domestic and foreign, that comprise such books (i.e., papers, inks, coatings, adhesives, and bindings). **Each of the tests that were conducted by accredited laboratories using accepted methodologies for determining total lead content under a variety of voluntary U.S. and international standards consistently indicated results showing total lead content as non-detectable or at or around 10 ppm, which (given the limitations of the tests) is another way of showing total lead content as non-detectable and, in any event, far below the lowest limits prescribed by the CPSIA, which do not become effective until August 2011.**

- **The manufacturing process for "ordinary books" is universal across the U.S. and across the globe, including in China,** with respect to its typical use of digital publishing files, aluminum plates etched by laser, and digital and offset lithographic printing, as well as practices for drying ink through gas-drying heat or UV light; binding collated sections with hot-melt or cold glue adhesives, or by sewing them with polyester or cotton threads, saddle-stitching them with wire or stapling, or punching holes for use with spiral wires; and attaching separately-made paperboard-based covers that frequently are treated with some form of laminate or other coating. The representative nature of these processes is due, at least in part, to the fact that no more than ten manufacturers produce the presses and other printing equipment currently in use around the world, while fewer than five manufacturers produce the binding equipment that is used across the global printing market. **Equally important, the book manufacturing process is not transformative with respect to the component materials that are assembled to create a finished book; in other words, the process does not introduce any lead into the finished product or chemically amplify any lead traces that may exist in the component materials.** At the same time, the risk of cross-contamination through use of the equipment and facilities for non-book print jobs is minimized to the point of non-existence due the highly specialized nature of

"ordinary book" manufacturing as reflected in the specifications and expectations the book publishers bring to the pool of printers they all generally utilize.

- **No lead-based chemicals or other materials are used in the production of the paper and paperboard that is used in the manufacturing of "ordinary books."** This is due not only to the past two decades of evolving awareness of environmental, health and safety concerns that induced paper mills to keep the treatment of natural wood pulp fibers free from the taint of heavy metals and certain other chemicals during the paper manufacturing process, but also because at least nineteen States in the Northeastern United States have enacted laws based on the standards promulgated by the Coalition of Northeastern Governors (CONEG) to help reduce and, eventually, eliminate lead and certain other heavy metals (i.e., mercury, cadmium and hexavalent chromium) from packaging and packaging materials in model legislation developed by CONEG in 1989. See http://www.toxicsinpackaging.org/model_legislation.html. **It is significant that the CONEG standards prescribe even lower levels of total lead content than those contained in the CPSIA. Moreover, the CONEG standards are significant in this context because the use of inks to produce printed packaging through offset lithographic printing, or through digital output devices using toner or inkjet, means that ink manufacturers serving the U.S. market have provided certifications to these printers that these materials meet CONEG standards.** In addition to the application of these standards to paper and paperboard used in "ordinary books," manufacturers note that they are not aware of any technical or beneficial uses of lead-based chemicals in the production of paper and paperboard that might encourage such use.

- **Similarly, today's manufacturers of commercial printer's inks do not include lead in inks for the same reasons.** Color in publication inks typically comes from the addition of organic pigments, carbon black, titanium dioxide, or metal powders made from aluminum, brass or copper. The "vehicle" used to bring the pigment to the substrate typically consists of a resin, which helps to affix the ink to the paper, and a solvent, which usually does not remain in the product after the drying process but may consist of water, vegetable oils, hydrocarbon oils or various kinds of alcohol. Other additives, such as certain dryers, modifiers, or waxes that are intended to impart certain properties to the printed ink may be present. However, none of these elements contain lead. As with the paper and other aspects of the manufacturing of "ordinary books," the use of publication inks is subject to customer certification and various regulatory standards, including the CONEG standards, the European counterparts they have influenced, and EPA's hazardous waste disposal regulations that govern how the printer must dispose of the waste ink in the printing process.

After the initial presentation by the publishing and printing industries' representatives, the CPSC staff asked them a number of questions concerning possible chemical similarities between pigments in commercial book publication inks and the lead-based paint pigments (e.g., lead chromate) used in outdoor signage; the practices of small ink

manufacturers in developing countries; the use of lead-based metal powders in publication inks; recycled paper; wire spiral binding; dyes in colored paper; printing methods other than offset lithography; the use of lead-based pigments in toner products used in laser-based printing; and other component materials such as laminates, foil and gilding. Although the responses indicated that none of these issues raised additional concerns regarding the total lead content of "ordinary books" for children, the CPSC staff indicated its intention to submit follow-up questions regarding the presentation.

## I. Follow-Up Questions to the Publishing and Printing Industries' Representatives

On January 27, five days after the meeting at the Commission, Kristina Hatlelid of the Commission's Directorate for Health Sciences, wrote to me to request that the publishing and printing industries' representatives provide the CPSC staff with certain additional information in order to help them "to assess the significance of the data provided" by those representatives at the earlier meeting.

The responses of the publishing and printing industries' representatives to the requests of the CPSC staff follow, appearing immediately below a statement (in bold) identifying the particular type of information requested.

**Identify the source of the data presented at the meeting (i.e., was it provided by the major publishers or one publisher) and the percentage of the children's ordinary book industry that the provided test results represents:**

**Response**: As previously noted, the individuals assembled by AAP to meet with the CPSC staff included representatives from five of the largest U.S. publishers of children's books (i.e., Scholastic, Random House, Simon & Schuster, Penguin Group USA, and The Walt Disney Company). The test data provided on the website viewed at the meeting were provided by some sixteen publishers of children's books, including the five represented at the CPSC meeting.

The compilation of sales statistics in different segments of the book publishing industry is somewhat imprecise and necessarily incomplete due to the fact that it is voluntary and largely depends upon self-reporting, whether by retailers or the publishers themselves. However, whether one looks at data for 2008 from Nielsen BookScan, which tracks/collects weekly point of sale information on unit sales from approximately 75% of the major chains, Internet book sites, independent book stores, discount/mass retailers and supermarkets, or from RR Bowker PubTrack Consumer Data, which gathers data through nationwide online surveys, **the ten largest publishers of children's books in the United States comprise over 80% of that market, when measured by either dollar share or units sold.** The five children's publishers who attended the CPSC meeting comprise over 50% of that market; adding Harper Collins, Hachette Book Group, Macmillan, Houghton Mifflin Harcourt, Workman, and Harry Abrams to that list accounts for the top ten children's publishers who comprise over 80% of the market. Each of the first four additional publishers also provided test results for the website. See Nielsen Bookscan & Bowker PubTrack Consumer Data postings on www.rrd.com/cpsia.

**Explain whether the test results are representative of the entire industry or only a segment of the industry, and why:**

**Response**: Children's book publishing is a highly specialized and competitive segment of the overall book publishing industry, and reliance upon test results and typical practices reported by the leading companies comprising over 80% of the children's book publishing industry should be regarded as reasonably representative of the industry as a whole. As leaders in a highly competitive and specialized industry, these companies set the benchmarks for quality products that all challengers and new entrants, as well as printers and suppliers, must meet in order to claim a share of the market. The fact that they have developed a firm intolerance for lead in the production of their "ordinary book" products through a keen, competitive awareness of the child care sensitivities of the parents, grandparents, teachers, and librarians who are the target purchasers for these products, rather than in response to government-imposed regulatory standards, should not be held against the publishers and printers of children's books. They should not be held to unreasonable burdens of proof regarding the representative nature of industry practices that have evolved to eliminate or, at least, strictly limit the total lead content in "ordinary books" simply because such products were unregulated within the jurisdiction of the Commission prior to the enactment of the CPSIA.

**Identify the test processes that are currently in place to ensure that raw materials and finished products do not contain lead:**

**Response**: As indicated by the test results originally and subsequently placed on the web site that was established by the publishing and printing industries representatives in early December 2008 in support of their initial request to the CPSC General Counsel for an advisory opinion letter confirming that "ordinary books" are not subject to the CPSIA total lead content testing and certification requirements, see www.rrd.com/cpsia, these industries rely on a variety of well-established test methodologies to ensure that finished "ordinary book" products and their component materials do not contain lead or only contain lead at levels safely below the total lead content limits prescribed in the CPSIA.

The test methodologies used (as identified either in the fifth column or in the "Documentation" provided in the sixth column of data) are those recognized within the framework of the following major standards that address prescribed total lead content limits (among others) for consumer products and materials, and should be familiar to the Commission and its staff:

**EN 71** – This European Union standard specifies safety requirements for toys. Compliance with the standard is legally required for all toys sold in the European Union. Part 3 of this standard (EN 71-3:1995) specifies requirements and test methods for the migration of lead (among other chemical elements) from a variety of materials including printing inks, paper and paperboard, laminates, varnishes, lacquers, polymers, and similar coatings.

**ASTM F963** – This American Society of Testing and Materials standard, developed originally as a voluntary product standard and published in 1976, was created to establish nationally recognized safety requirements for toys, and has now been federalized under the CPSIA. Section 8.2 of the standard covers testing methods for hazardous substances, including lead, and with reference to total lead content testing regarding lead-containing paint on toys and other articles intended for use by children under 16 C.F.R. 1303.

**CONEG** – This standard, originally drafted by the Source Reduction Council of the Coalition of Northeastern Governors in 1989, was embodied in the Model Toxics in Packaging Legislation that has subsequently been enacted into law in 19 States. The Toxics in Packaging Clearinghouse (TPCH) was formed in 1992 to promote the Model Legislation, which was developed in an effort to reduce the amount of heavy metals in paper and other kinds of packaging & packaging components that are sold or distributed throughout the United States. Specifically, the law was designed to phase out the use and presence of mercury, lead, cadmium and hexavalent chromium in packaging and packaging materials within four years in those States that enact the legislation. The prescribed combined limits for all four of these heavy metals under the Model Legislation are lower than the limits prescribed for total lead content alone under the CPSIA.

**RoHS** – An acronym for "Restriction of Hazardous Substances," RoHS, which is formally known as Directive 2002/95/EC, originated in the European Union to implement restrictions on the use of specific hazardous materials in electrical and electronic products. All applicable products in the EU market after July 1, 2006 must pass RoHS compliance. In addition to restricting a range of chemical flame-retardants, RoHS, like the CONEG standard, restricts the amount of lead, mercury, cadmium, and hexavalent chromium in such products.

The publishing and printing industries' representatives urge the Commission and its staff to carefully examine all of the documented test results that can be accessed on the above-referenced RR Donnelley website, www.rrd.com/cpsia, in order to assess the results in terms of their basis in appropriate testing methodologies and their consistency in demonstrating that "ordinary books" as finished products inherently do not contain lead or contain lead only at levels well below the total lead content limits prescribed in the CPSIA.

In reviewing the test results data, which has been further supplemented since the January 22 meeting at the Commission, it is especially important to note the following with respect to the columns of different data provided for each category subject to testing:

- Under the first "subcomponent" column, it should be clear that a serious effort has been made to provide test results that are representative of a wide variety of different kinds of products or materials within the general category involved. For example, this column of information for "finished books" demonstrates that test results have been provided for board books, hard cover and paperback books, textbooks, puzzle books, stencil books, flip books, card books, sticker books, cut-out books, and many other varieties with different kinds of cover materials,

bindings, and other parts of manufactured books, as well as for a variety of "finished" non-book, paper-based printed materials in the category of children's products, such as playing cards and flash cards. Similarly, the "subcomponent" column for each of the covered materials that go into the manufacturing of a book – i.e., paper, ink, coatings, adhesives, and wire – shows that test results for a wide variety of those materials have been provided in order for the sum of the individual items to be representative of what is actually being used by the publishing and printing industries for book manufacturing purposes.

- Under the third ("criteria/standard") and fifth ("test methodology") columns, the propriety of the test methodology used in a given case is demonstrated by linking it to the applicable standard the testing was required to meet. While a few of the more early reported test results on the web site may have wrongly focused on tests for soluble lead, rather than tests for total lead content, the web site now has an abundant supply of total lead content test results consistent with CPSIA requirements. As indicated in the fourth ("Result") column, the test results show a high degree of consistency in demonstrating, within the capabilities of the test methodologies employed, just how far below the CPSIA prescribed limits the test results for finished books and their component materials really are proven to be.

- Finally, data provided under the second "Vendor/Country" column and the sixth "Documentation" column together offer substantial evidence of the consistency of the test results, regardless of the place of manufacture or the location of the testing laboratories.

**If available, provide any data from testing performed by retailers:**

**Response**: The representatives of the publishing industry do not have any data from testing performed on "ordinary books" by retailers. This, however, is understandable in light of two salient facts: Prior to enactment of the CPSIA, such children's products were not subject to any regulatory standards that required testing for total lead content. Subsequent to the enactment of the CPSIA, retailers are still under no compulsion to conduct tests for total lead content in these children's products because the testing requirements under the new law are imposed on the manufacturers and importers of such products, not their retail distributors.

**Provide assurances that the process used for ordinary books is "universal" among all major publishers and smaller publishers, and that these publishers all use the same pool of manufacturers and component suppliers:**

**Response**: As previously noted, the five well-known publishers of children's books whose representatives explained the process for printing "ordinary books" to the CPSC staff at the January 22 meeting comprise over 50% of the market for such products. Together with several other leading publishers of children's books who did not have representatives at that meeting, they are the source of many of the test results residing on

the web site established by the publishing and printing industries representatives in early December 2008 in support of their initial request to the CPSC General Counsel for an advisory opinion letter confirming that "ordinary books" are not subject to the CPSIA total lead content testing and certification requirements.

The highly specialized and competitive nature of children's book publishing helps to explain why these publishers generally utilize the same pool of manufacturers and component suppliers, and the fact that they do so helps to explain the universal nature of the processes and materials that produce "ordinary books" which inherently do not contain lead in amounts that would violate the CPSIA's prescribed total lead content limits.

Many of the production values common to the manufacturing of "ordinary books" are also specialized needs that cannot be met by all printers. Over the past decade or more, consolidation within the publishing industry has led to consolidation within the printing industry, and the pool of available printers has declined. Print manufacturing is a capital-intensive industry, primarily due to the high cost of the presses and binding equipment, and the added pressures of adapting to technological developments have forced many printers in the U.S. to either merge or go out of business.

According to the June 2008 issue of *Printing Impressions*, a highly influential industry journal published since 1958 by the North American Publishing Company (NAPCO), which annually lists a ranking of the 400 largest printing companies in North America that engage in the printing of advertising inserts, business forms, catalogs, directories, newspapers, magazines, packaging and other items as well as book manufacturing, fifty-one (51) of the companies listed for 2007 indicated that all or a portion of their business is book manufacturing. *Book Business* magazine, which is also published by NAPCO, annually lists the "Top 30" book manufacturers. According to its June 2008 edition, the Top 30 in 2007 accounted for 99% of the total sales for book manufacturing noted in the *Printing Impressions* listing. The "Top 5" in that list (i.e., RR Donnelley, Quebecor World Publishing Services, Courier Corporation, Visant, and Arvato Print USA) accounted for 66% of those total sales, with the top three (3) manufacturers in that group (all of whom were represented at the January 22 meeting with the CPSC staff) accounted for nearly 50% of the total book manufacturing sales, of which roughly 17% were for "children's products" as defined in the CPSIA. See the Printing Impressions 400 at http://www.piworld.com/article/printing-impressions-ranking-leading-printing-companies-2008-401147_2.html;

Children's picture books (4-color story books) are generally thin books that can only be manufactured by printers who have the equipment required to bind them. While many manufacturers cannot bind a spine that is under ¼ inch wide, most picture books have a spine width measuring from $1/16^{th}$ to $1/8^{th}$ inch. Because quantities of these books are not usually large, this body of work is usually consolidated with one or two vendors to ensure good pricing.

Another children's book format – "board books" – require printing on heavy paperboard, which not all printers are equipped to do. Specialized presses are needed to handle this thick substrate and these books require a labor-intensive binding method that is mostly not automated. Generally, these books are produced overseas by a relatively small body of printers who are known to be properly equipped for this type of work.

Children's hardcover novels and 1-color paperbacks generally have spine widths that exceed ¼ inch, and can be printed and bound by the same printers who produce titles aimed primarily at adult readers. Still, the pool of manufacturers that produces this type of work is not large and continues to shrink.

Generally, large publishers work with suppliers who have enough capacity in their presses and binding equipment to handle a large portion of the publisher's work. Small printers typically cannot handle the volume required by large publishers.

As an industry, children's book publishers have moved to a more narrow supplier base that specializes in their product types. Much of the work is similar between publishers, allowing the printers to purchase common materials in bulk, which end up being utilized by multiple publishers producing similar products.

During the January 22 presentation to the CPSC staff, it was noted that no more than ten manufacturers produce the presses and other printing equipment currently in use around the world, while fewer than five manufacturers produce the binding equipment that is used across the global printing market. Each of these small groups of manufacturers, including Heidelberg, Man-Roland, Timson, Harris, Komori, Toshiba, and Goss for press equipment, and Harris, Mueller-Martini and Kolbus for binding equipment, respectively, is aware of the general and specialized specifications required for children's books by the leading publishers.

Similarly, input received from the American Forest & Paper Association (AF&PA) for the purpose of informing this submission about the production of "printing and writing papers," confirms that paper is derived from natural wood, which inherently has a *de minimis* level of total lead content, and that the primary components in the production of paper are wood fiber and water, neither of which contains lead at more than *de minimis* levels. Lead-based chemicals are not introduced in the major phases of the paper manufacturing process (i.e., wood preparation/pulping; bleaching/refining; running of the paper machine; and finishing processes, including coating). AF&PA also notes that less than 5% of the total printing and writing papers produced in the United States goes into book manufacturing, and that about a dozen paper mills represent 94% of this book paper production. Independently, publishers and printers have identified AbitibiBowater, Appleton Coated, Domtar, Cascades, Fraser Papers, Glatfelter, Sappi, International Paper, Mohawk, Stora-Enso, UPM, Norpac, Tembec Spruce Falls, and NewPage as the leading sources for their purchases of book manufacturing paper.

In this environment, many children's book publishers consider the identification of their relationships with specific printers or manufacturers to be proprietary information that is

generally not made public. However, notwithstanding this concern, **it is possible to show that the children's book publishers comprising the overwhelming majority of that market generally utilize the same pool of printers, both in the U.S. and overseas.**

Thus, based upon the input they provided to AAP for this submission, it is clear that Random House, Simon & Schuster, Scholastic, Penguin USA, Pearson Education, Harper Collins, Harvest House Publishers, Disney Publishing, Hachette Book Group, Houghton Mifflin Harcourt, Macmillan, Thomas Nelson, and Workman each use at least two (2) and, in some cases, as many as ten (10) of the following printers or manufacturers primarily based either in the United States or overseas:

Primarily Based in the United States – Arvato Print USA (Berryville Graphics, Coral Graphics, and Offset Paperback Manufacturers); Command Web; Courier Corporation; Lake Book Manufacturing; Lehigh/Phoenix (A Visant Company); Malloy, Inc.; The Maple-Vail Book Manufacturing Group; Pint Size Productions; Quebecor World; RR Donnelley; Unimac Graphics; Universal Printing Co.; and, Worzalla Publishing Company.

Primarily Based Overseas – C&C Offset (China); Elegance Printing & Book Binding (Hong Kong); Hung Hing (China); Imago Services (China); Leo Paper (China); RRD/South China Printing (China); Sirivatana (Thailand); SNP Excel (China & Thailand); Tien Wah Press (Singapore); Toppan (Japan); Whiz/Millenium Int'l Ltd (China); and, Wing King Tong (Hong Kong);

On the other hand, many of those same printers and manufacturers also do work for small publishers of children's books. The Book Manufacturers' Institute has reported that its members do work for over 500 publishers of children's books. See spreadsheet posted on www.rrd.com/cpsia. To the extent that both large and small publishers are generally using the same pool of book printers and manufacturers, the Commission should have greater confidence that the practices discussed in the context of the total lead content issues raised by the CPSIA are similar across the industry.

It is important once again to emphasize the universal nature of the production process for children's books. As explained by the Printing Industries of America in comments provided for this submission, the manufacturing of books involves three basic steps of prepress, press and post-press, or binding and finishing. There are two methods used to actually print the books, and they are the offset lithographic printing process or digital output devices that use either dry toner or water-based inkjet inks. The prepress area involves the preparation of digital files and either sending them electronically to a digital output device or imaging an aluminum printing plate that will be mounted on a lithographic printing press.

In the press step, ink is applied via the offset lithographic printing process, which is a unique planographic printing process that takes advantage of the fact that oil and water are immiscible (i.e., they will not form a solution in any proportion). Offset inks are very thick and oil-based, and the image area of the plate is such that it is oil-loving; however,

the non-image area is treated with gum arabic (or its synthetic equivalent) to make it water-loving so that the ink adheres to the image area. The inked image is then transferred to a rubber-covered cylinder called a blanket, which then transfers the image to the paper. The ink either dries at ambient temperatures with sheet-fed presses or, in the case of web press (i.e., continuous roll of paper), with gas-fired dryers that use elevated temperatures. In some cases, inks and coatings can be cured with UV light.

With digital output devices, the toner or ink jet ink is applied directly to the paper. In toner systems, a metal drum is electronically charged to attract toner to the drum, and then the toner is transferred to the paper and fused to the surface. Ink jet devices use liquid inks that are sprayed onto the paper via small electronically controlled orifices

The post-press step involves folding, cutting and binding of collated sections into a finished product. The binding can be done either mechanically or chemically with hot-melt or cold glue adhesives, sewing them with polyester or cotton threads, saddle-stitching them with wire or stapling, or punching holes for use with spiral wires. In addition, separately made paperboard-based covers can be attached and in some cases the covers would have treated with some form of laminate or other water-based or UV cured coating.

**Verify any prohibitions against leaded ink applications coming into printing facilities used for children's books:**

**Response**: The discussion with CPSC staff regarding whether vendors safeguard against leaded ink applications coming into printing facilities used for children's books arose in connection with the question of whether a vendor's performance of non-book printing jobs using the same facilities presented any real risk of cross-contamination of the printing facilities in terms of chemicals or other materials that could subsequently introduce lead content into children's books printed by the same vendor. The primary example raised of such non-book printing jobs was the manufacturing of outdoor signage, which typically requires the use of lead-based pigments.

As a practical matter, however, the possibility of cross contamination of children's books from lead-based pigments used in the manufacturing of outdoor signage does not exist. First and foremost, the manufacturing of outdoor signage uses completely different printing processes than what is used to produce children's books and other paper-based, printed children's products. Outdoor signs are produced using either the screen printing process or the more contemporary process of large-format digital printing. Children's books and other paper-based, printed children's products are produced using either the offset lithographic printing process or digital output devices that use dry toners or inkjet inks.

The method by which the ink is applied to the substrate constitutes the key difference between printing through screen printing and large format digital press processes, on the one hand, and offset lithography and digital output devices, on the other, since the latter processes use dry toners or inkjet inks. These differences in the methods of ink

application require completely different ink systems, which make them completely incompatible. For this reason, screen inks cannot be used on an offset lithographic printing press. Furthermore, the specialization that exists within the printing industry means that companies that manufacture outdoor signs will not engage in the manufacture of books or other paper-based, printed children's products; to the extent that some may do both activities, they must use entirely different equipment and, thus, would typically have distinct facilities.

Some current pictures representative of book manufacturing facilities are available on the web site, www.rrd.com/cpsia, in order to help dispel the old image of the "machine shop" that may come to mind for those who are not familiar with the clean, modern high-technology facilities that actually perform these manufacturing tasks today.

**Explain how the industry has not used lead-containing materials or has moved away from leaded inks over the past few decades for all types of printing processes, including traditional printing and other types such as laser or toner-based printing:**

**Response**: It is possible to trace the movement away from leaded inks over the past two decades on an international basis through a series of voluntary restrictive actions taken by the printing ink manufacturing industries. Last month, for example, the National Association of Printing Ink Manufacturers (NAPIM) published an edition of the NAPIM Bulletin (No. 08-05) that focused on "Metals in Printing Ink." See posting on www.rrd.com/cpsia. While noting that "metals can be present in printing inks in the form of metal-based pigments, driers or through impurities and contaminants in the raw materials used in the formulation process," the Bulletin stated:

*"Federal health and environmental regulations enacted in the United States beginning [sic] 1970s made the usage of the known highly toxic metals (i.e., lead, arsenic, selenium, mercury, cadmium, and hexavalent chromium, or compounds based on these metals) as printing ink formulation components an unattractive option and ultimately resulted in the large-scale removal of these metals from commercial usage in printing inks."*

Citing the CONEG-based standards, as well as regulations and guidelines at the EPA, OSHA, and the CPSC, the Bulletin noted that, while metallic inks (i.e., containing copper and aluminum-based pigments), inks using metal-based pigments (i.e., copper and barium-based pigments), and inks using metal-based driers (including inorganic salts and cobalt and manganese carboxylate compounds, as well as zinc, calcium, zirconium and other metal compounds or organic derivatives) continue to be manufactured, none of these printing inks nor their driers contain lead or any of the other known highly toxic metals.

Similarly, an "Exclusion List for Printing Inks and Related Products" published in October 2007 by the European Printing Ink Association (EuPIA) includes "pigment colourants based on and compounds of... lead" among the categories of raw materials excluded from the manufacture of printing inks and related products supplied to printers.

Further back, in December 2004, a document issued by the Canadian Printing Ink Manufacturers Association (CPIMA) entitled "Solving 'Heavy Metal' Compliance" cited the earlier CONEG Toxic in Packaging Legislation, the ASTM Standard Consumer Safety Specification on Toy Safety (F963-03), and the European Standard EN 71-3:1994/A1:2000 as all designed to restrict and, ultimately, phase out the use of lead and other heavy metals that it noted, in any event, "are rarely, if ever, used in printing ink formulations."

That report echoed a position statement on "Use of Lead Compounds in Printing Inks" which was published in March 2004 by the British Coatings Federation (BCF), wherein the BCF, the sole UK trade association for decorative and industrial coatings and printing inks manufacturers, representing around 85% of the total market, noted that:

*"In the case of lead compounds, and in particular lead chromate pigments, printing ink manufacturers in membership of the BCF have operated, for over thirty years, to a voluntary industry code of practice that, with quite specific exceptions [unrelated to book publishing], prohibits their use in printing inks."*

*"In addition to the industry's voluntary action, UK printing ink manufacturers and printers comply with legislative requirements, such as the Packaging (Essential Requirements) Regulations, which [similar to the CONEG model] restrict the presence, amongst other components, of lead compounds in packaging materials."*

Still another report, issued in August 1998 by the Lead Chromate Committee of the Color Pigments Manufacturers Association (CPMA), an industry trade association representing color pigments companies in Canada, Mexico and the United States accounting for 95% if the production of color pigments in North America, noted that "the use of lead chromates in ink products has almost completely been eliminated" except for certain specified uses wholly unrelated to the printing of books.

With respect to dry ink toner used in digital production presses, we would note that an October 2008 fact sheet issued by the Xerox Corporation regarding "Environmental, Health and Safety Facts About Xerox Dry Ink Toner" does not specifically mention lead, but appears to indirectly vouch for the absence of lead by stating that Xerox dry ink toner is "non-toxic" as "the result of careful selection of materials and control of the raw material ingredients," which include "plastics, colorants and small quantities of functional additives."

**Provide information on colored paper, including the dyes, inks, and other materials used, and any test data, if available:**

**Response**: Input received from the AF&PA for the purpose of informing this submission with regard to the manufacturing of papers used in book manufacturing explains that the primary components in the production of all commercial grade papers are natural resources of wood fiber and water, neither of which is contains lead. AF&PA notes that at no point in the four major phases in the process of manufacturing papers typically used

in the printing of books (i.e., wood preparation/pulping; bleaching/refining; running of the paper machine; and finishing processes, including coating) is any lead-based chemical or other material introduced into the paper being made. Coated papers, which are often selected for printing children's picture books, consist of the base uncoated stock plus latex, clays and some pigments, none of which are lead-based.

Although the pulp made from wood fiber typically undergoes a bleaching process in which the naturally brownish material is whitened and brightened, neither this process nor the introduction of appropriate dyes or pigments to color the paper product involves any lead-based additives, according to the AF&PA.

**II. NPRM Concerning Children's Products Containing Lead; Proposed Determinations Regarding Lead Content Limits on Certain Materials or Products.**

As noted at the outset, the second purpose of this submission is to provide Comments in response to the pending Notice of Proposed Rulemaking concerning "Children's Products Containing Lead; Proposed Determinations Regarding Lead Content Limits on Certain Materials or Products," 74 Federal Register 2433 (daily ed. January 15, 2009).

In proposing to exercise its authority under section 3 of the CPSIA to make preliminary determinations that certain commodities or classes of materials or products do not exceed the lead limits prescribed in the CPSIA, the Commission has taken action based on its staff's identification of "certain natural materials" that do not inherently contain lead or contain lead that does not exceed the CPSIA limits. The CPSC staff "briefing package" that presented the staff's recommendations on this matter to the Commission, see http://www.cpsc.gov/library/foia/foia09/brief/leadlimits.pdf, explains that the staff identified and recommended the particular "natural materials" at issue "*based on the available scientific information and the staff's best professional judgment* that such materials do not contain lead or contain lead at levels that do not exceed the CPSIA lead limits." (Emphasis added.)

The Commission notes that its preliminary determination to adopt the staff's identification of these "natural materials" as classes of products or materials that do not exceed the CPSIA lead limits is "based on materials that are untreated and unadulterated with respect to the addition of materials or chemicals, including pigments, dyes, coatings, finishes or any other substance, and that do not undergo any processing that could result in the addition of lead into the product or material." Id. at 2433.

It makes sense that "natural materials" which lack lead content in their "natural" state would have that "natural" state preserved by meeting the conditions regarding treatment, adulteration and processing. However, the Commission and its staff should also recognize that the determination that certain classes of products or materials "do not contain lead or contain lead at levels that do not exceed the CPSIA lead limits" can also be sensibly supported, even where such products or materials are subject to treatment and adulteration "with respect to the addition of materials or chemicals, including pigments, dyes coatings, finishes or any other substance," provided that such treatment and

adulteration, as well as any "processing" that the products or materials may undergo, do not "result in the addition of lead into the product or material."

Indeed, there is no justification in limiting such determinations to so-called "natural" materials insofar as the same sound reasoning would apply to certain products or materials even if they could not be characterized with reference to their state in nature. Presumably, this is why the staff identified and recommended that "certain metals and alloys" should be subject to the same kind of determination by the Commission, even though they are not characterized as "natural" materials. Id. at 2434. Moreover, it is why the Commission's NPRM, in addition to seeking public comment on the preliminary determinations on the listed items and other "natural" fibers and materials, also seeks comment on other metals and alloys and "other materials, which by their nature, would not exceed the lead content limits." Id.

While understanding that certain products or materials might be more likely to not contain lead or to not contain lead at levels exceeding the CPSIA limits, when they are utilized as products or component materials in their "natural" state, the publishing and printing industries' representatives believe it is essential that the Commission and the CPSC staff acknowledge that such determinations are equally appropriate for products and materials that may not be utilized or even exist in a "natural" state, provided that, whatever their state, and whatever treatment, adulteration or processing they may undergo, they nevertheless do not contain lead or do not contain lead at levels exceeding the CPSIA limits. *This is precisely the case the publishing and printing industries' representatives are making for "ordinary books," their component materials, and the process by which such books are manufactured.*

The publishing and printing industries representatives also note that, in basing their recommendations on "the available scientific information," the CPSC staff did not indicate whether they had conducted their own tests on the materials at issue or had even looked at specific results of testing conducted by others. They did indicate, however, that they consulted "Selected References," including the 2007 Toxicological Profile for Lead (Update) that was published by the Agency for Toxic Substances and Disease Registry (ATSDR), a component of the U.S. Department of Health and Human Services. See CPSC Staff "Briefing Package," p.1, footnote 2.

The Toxicological Profiles prepared at ATSDR are described in those materials as reflecting "a comprehensive and extensive evaluation, summary, and interpretation of available toxicologic and epidemiologic information" on a given hazardous substance. In short, they are precisely the kind of "available scientific information" upon which the CPSC staff should base the exercise of its "best professional judgment" in identifying other products and materials that do not inherently contain lead or contain lead that does not exceed the CPSIA limits.

To that end, it should be noted that the updated Toxicological Profile on Lead, which runs to nearly 600 pages, contains four sections addressing lead and pediatric health. The publishing and printing industries representatives' strongly urge the CPSC staff to once

again consult this critical work, so that they may review the sections entitled "How Can Lead Affect Children?" (Section 1.6); "How Can Families Reduce the Risk of Exposure to Lead?" (Section 1.7); "Children's Susceptibility" (Section 3.5); and, "Exposures of Children" (Section 6.6). In those sections, they will find no mention of paper-based children's books among the lengthy discussions of sources of children's toxic exposure to lead. The absence of any reference to "ordinary books" as a possible source of children's toxic exposure to lead in this important, comprehensive and official Federal Government source of "available scientific information" on the toxic nature of lead should certainly be given significant weight in the CPSC staff's consideration of this submission. The ATSDR Toxicological Profile on Lead (August 2007) may be found online at http://www.atsdr.cdc.gov/toxprofiles/tp13.pdf.

**III. Request for the Commission to Exercise its General Regulatory Authority under Section 3 of the CPSIA.**

In light of the factual and scientific information available to the Commission and its staff, including information provided in this submission and through the referenced website established in early December 2008, the publishing and printing industries' representatives request the Commission to exercise its general regulatory authority under Section 3 of the CPSIA to determine that "ordinary books" and their component materials do not inherently contain lead or contain lead that exceeds the CPSIA limits.

The publishing and printing industries' representatives recognize that the Commission has a pending rulemaking regarding the procedures and requirements for its exercise of this authority in the manner requested, see "Children's Products Containing Lead; Notice of Proposed Procedures and Requirements for a Commission Determination or Exclusion," Vol. 74 Federal Register 2428 (daily ed. January 15, 2009). However, they believe that the Commission already has the authority to propose such a determination, and that the materials at issue are of the type that in the pending rulemaking "the Commission considers may fall within the class for priority evaluation" (i.e., paper, inks, adhesives and the like). *Id.* at 2430.

The publishing and printing industries' representatives respectfully urge that their request meets the proposed requirement of being "supported by objectively reasonable and representative test results or other scientific evidence showing that the product or material does not, and would not, exceed the lead limit specified in the request." *Id.* at 2430.

They, therefore, urge the Commission to act affirmatively on the request to determine that "ordinary books" and their component materials do not inherently contain lead or contain lead that exceeds the CPSIA limits.

At this point, it should be noted that many children's and educational book publishers and manufacturers also produce other paper-based, printed materials besides books that constitute "children's products" under the CPSIA. Examples of such materials include bookmarks, posters, flash cards, school tests, and loose sheets of coloring paper. There is no difference in the manufacturing process used for the production of these other paper-

based materials. Moreover, it is the same raw materials – ink and paper – and the same group of publishers, manufacturers, and suppliers that are involved in the production of these paper-based, printed materials. In that light, the Commission should consider the request regarding "ordinary books" and their component materials as similarly applicable to these other paper-based, printed materials that use the same raw materials and manufacturing processes.

Although the publishing and printing industries' representatives are keenly aware that the provisions of the CPSIA concerning phthalates may be relevant to some of the products they produce other than "ordinary books" and other paper-based, printed materials, they recognize that those issues are beyond the scope of this document and will address them with the Commission at another time.

On behalf of the publishing and printing industries' representatives, thank you for giving this matter your prompt attention and careful consideration.

Sincerely,

Allan R. Adler
Vice President for Legal & Government Affairs
Association of American Publishers
50 F Street, NW
4th Floor
Washington, DC 20001-1530
Phone: 202/220-4544
Fax: 202/347-3690
Email: adler@publishers.org

Attachment: List of Organizations Endorsing this Submission

**List of Organizations Endorsing this Submission**
**(February 12, 2009**

American Forest and Paper Association
Association of American Publishers
Book Manufacturers' Institute, Inc.
National Association of Printing Ink Manufacturers
Printing Industries of America

Hachette Book Group
HarperCollins Publishers
Harvest House Publishers
Houghton Mifflin Harcourt
Macmillan
Pearson Education
Penguin Group USA, Inc.
Random House, Inc.
Scholastic Inc.
Simon & Schuster, Inc.

Bridgeport National Bindery, Inc.
CJK
Command Web Offset Co.
Courier Corporation
Hess Print Solutions
Lake Book Manufacturing, Inc.
LeHigh Phoenix, A Visant Company
Malloy Incorporated
McNaughton & Gunn, Inc.
Quebecor World
R.R. Donnelley
Reindl Bindery Co., Inc.
Sheridan Books, Inc.
Stromberg Allen and Company
The Maple-Vail Book Manufacturing Group
Webcom, Inc.
Webcrafters, Inc.
Worzalla Publishing Company

## Stevenson, Todd

**From:** Allan R. Adler [aadler@publishers.org]
**Sent:** Thursday, February 12, 2009 5:47 PM
**To:** Lead Determinations; CPSC-OS
**Subject:** Request for Commission Determination
**Attachments:** NPRM Comments - Request for Determination 2-12-09final.pdf

Attached are Comments submitted in a timely fashion to the pending rulemaking referenced on their front page.

The document should is also submitted to the Office of the Secretary as a request for the Commission to exercise its regulatory authority under Section 3 of the CPSIA to determine that ordinary books and other paper-based printed materials designed and intended primarily for children inherently do not contain lead or contain lead at levels safely below those prescribed by the CPSIA.

Please confirm receipt by reply email.

Thank you

*Allan Robert Adler*
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211

# Made in USA Strategies, LLC

**2256 N. Upton St.**
**Arlington, VA. 22207**

**703-524-7197**
**jim.schollaert@verizon.net**

**February 12 , 2009**

Office of the Secretary
Consumer Product Safety Commission, Room 502
4330 East-West Highway
Bethesda, MD 20814

**Section 101 Determinations of Certain Materials or Products NPR:**

**REQUEST TO ADD SOCKS OF TEXTILE FABRIC TO EXEMPTION PROPOSAL LIST or in the alternative, DYED OR UNDYED TEXTILES AS DESCRIBED IN THE STATEMENY OF COMMISSION ENFORCEMENT POLICY ON SECTION 101 LEAD LIMITS**

This public comment submission on - Section 101 Determinations of Certain Products NPR under the CPSIA of 2008 is made on behalf of the Domestic Sock Maker's Coalition (DSMC) by Made in USA Strategies. Made in USA Strategies is the Washington Representative of the DSMC, a group of 25 domestic sock manufacturers. This NPR was published in the Federal Register, Volume 74, No. 10/ January 15, 2009 on page 2433.

## REQUEST

The DSMC requests that socks of plain textile fabric, or the broader class of dyed or undyed textile fabrics as described below, be added to the list of products or materials proposed for a determination that these products or materials inherently do not contain lead in excess of the CPSIA lead limits of 600 ppm or 300 ppm, and as such are granted a permanent exclusion or exemption from the CPSIA requirements of testing and certification.

Time is of the essence to relieve the hard pressed sock industry of the extremely burdensome and continuing demands for certification and testing of all socks shipments. This proposed rule making for exempting certain products from lead content testing and certification is already in progress. By adding socks, or in the alternative, dyed and undyed textile fabric to the existing list of products already proposed by Commission staff for exemption, relief may come in time to relieve extreme hardship and prevent sock mill closings.

## COMMISSION ACTION TO DATE

The Commission staff has already begun to identify classes of children's products whose lead content falls consistently below the prescribed limits in the CPSIA, and socks clearly

fall into the second of the classes listed below. In the Statement of Commission Enforcement Policy on Section 101 Lead Limits, the Commission states that "The staff is not aware of a single documented case in which a product falling within one of the following classes contained lead above 300 ppm:

- Ordinary Children's books printed after 1985
- Dyed or undyed textiles (not including leather, vinyl or PVC) and non-metallic thread or trim used in children's apparel and other children's fabric products such as baby blankets. This class does not include such products if: (1) they have undergone further treatment that may impart lead; (2) they are ornamented with metal, rhinestones, or other objects; or (3) they have plastic or metal fasteners with possible lead content (such as snaps, grommets, zippers, or buttons)

## SOCK INDUSTRY BACKGROUND

The domestic sock industry has had an unblemished record for over a hundred years without a consumer product safety issue. Yet these sock mills were tasked by the CPSIA with extremely expensive requirements with little or no justification for unique and specifically detailed certificates of compliance with the new CPSIA standards for every product shipment, as well as third party testing for lead and possibly other consumer safety standards.

On January 22, 2008, the CPSC heard testimony and received evidence from textile and apparel industry representatives, and apparel retailers regarding technical and scientific information to establish that all the components used in apparel fabric production, the fiber, yarn, dye and other processing chemicals, are inherently free of lead content that would violate the limits promulgated by the CPSIA of 2008. After thousands of leading retailer and other industry lead tests using both wet chemistry and XRF spectrometry analysis, only a few children's apparel products with hard parts such as zippers, rivets, buttons or snaps failed the lead content tests.

Over 100 sock companies were surveyed by the Hosiery Technology Center of Hickory, NC for the January 22 presentation, to determine if any sock mills detected lead in their product testing, or had lead detected in their sock mill effluent which is monitored on a regular basis according to EPA and state regulations by local sewage treatment authorities. No instances of lead detection were reported. In addition, the commercial dyeing industry was surveyed to ascertain if any commercially available apparel dyes contained lead in violation of the CPSIA standards, and no dyes containing lead were found. Since socks are the product of a consistent production process using lead free inputs, with an impeccable consumer product safety record, socks should be exempted from the 3rd party testing and shipment certification requirements of the CPSIA. The certification requirement could be replaced with the requirement of a guarantee of compliance with the provisions and standards of the CPSIA of 2008 which could be placed on each invoice or packing list for each shipment if necessary.

Socks are by their nature, pure knit apparel products with no hard parts. Unusual socks which bear metal or non-textile decorations would not qualify for this exemption. In any case, third party testing of component parts would focus the testing on any unusual non fabric sock ornaments which might reveal lead content. Domestic sock manufacturers are already subjected to a variety of hazardous materials tests including strict regulation by the EPA and OSHA for lead and other hazardous substances.

Because of the nature of the domestic sock industry's many small shipments, the costs and complexity of the CPSIA requirement for a unique, detailed certificate of compliance to accompany each sock shipment would alone put most of these companies and their thousands of employees out of business, for no apparent consumer protection reason, at this time of extreme economic difficulty for the nation.

Most of the domestic sock companies are smaller mills that have very SKU-intensive orders and shipments, rather than the gigantic commodity socks shipments that go from China to big-box retailers. Some domestic sock mills can receive hundreds of orders a day from one of their clients, to ship socks directly to various chain store locations around the country to replenish inventory on a daily basis. Each of these shipments would require a unique certificate of compliance, to comply with the current interpretation of CPSIA. Even if these invoices are done electronically, an expensive software system would have to be rewritten to cross reference the invoice with the packing slip to render the shipment trackable. If reduced to paper, each invoice would cost $0.09. In addition, some socks are shipped and sold in packs that contain ten colors or more, each one of which could conceivably require a separate test and certificate.

One sock mill estimates that compliance with the certification and testing requirements as originally proposed by the CPSIA would cost them over $600,000 in the first year. Several new employees would have to be hired just to administer compliance with the certification requirements. This would drive a very successful sock mill, family owned and founded in 1920, out of business, along with several hundred employees.

There are still over 100 domestic sock mills operating in the U.S.A. There are over 10,000 sock mill employees in the U.S. and another 5,000 employees in their supply chain. Most of these domestic sock mills are located in economically distressed rural areas where the jobs and revenue streams they provide are the life blood of their communities. Exemption from the certification process for compliance with lead content testing, the Flammable Fabrics Act, and any other certification requirement flowing from the CPSIA is also absolutely necessary.

## CONCLUSION

The CPSC has recently taken steps announced in the Federal Register on February 9, 2009, to provide a temporary 12 month stay of enforcement, for manufacturers of certain products including the sock industry, of all CPSIA certification and testing requirements. However, a permanent remedy for the sock industry is sorely needed to alleviate continuing demands from retailers and others customers for compliance certifications despite these temporary CPSC measures.

We would also request that you give serious consideration to issuing a rule which not only grants and exemption for socks from the lead testing and certification requirements, but would also transform the CPSC's current 12 month stay of enforcement of **all** testing and certification requirements for socks of plain textile fabric to a **permanent** exemption **from all these testing and certification requirements imposed by the** CPSIA. **Such a** rule would obviate the possible need to issue a unique certification of compliance for every product shipment with the Flammable Fabrics Act (FFA), as is still demanded by some retailers even though socks are already exempt from the testing and guarantee requirements of the FFA.

Our domestic sock industry will continue to adhere to the highest standards of consumer product safety and we appreciate and support the mission of the Consumer Product Safety Commission. We also appreciate the difficulty that the language of the CPSIA of 2008 as hastily passed by Congress presents to the Commission. If you have any further questions about this submission, or the domestic sock industry, please contact Jim Schollaert, at 703-524-7197, cell-202-380-5039, e-mail address jim.schollaert@verizon.net. Thank you for your attention.

Sincerely,

Jim Schollaert, Executive Director
Made in USA Strategies

## Stevenson, Todd

**From:** jim schollaert [jim.schollaert@verizon.net]
**Sent:** Thursday, February 12, 2009 5:37 PM
**To:** Lead Determinations
**Cc:** Falvey, Cheryl; Toro, Mary; Kim, Hyun
**Subject:** Section 101 Determinations of Certain Materials or Products NPR - Public COmments
**Attachments:** CPSC-DSMCSockExemption2-12-09.doc

Attached above are the public comments/requests/petition on behalf of the domestic sock industry for relief from the lead testing and certification requirements of Section 102 of the CPSIA of 2008, as well as other certification requirements. This is submitted in response to the request for public comment in the NPR published in the Federal Register on January 15, 2009 cited above.

212

JEWELERS VIGILANCE COMMITTEE

*The Industry's Guardian of Ethics and Integrity*



Office of the Secretary
Consumer Product Safety Commission
Room 502
4330 East West Highway
Bethesda, Maryland 20814

Via regular mail and e-mail:
Sec101Determinations@cpsc.gov

Dated: February 12, 2009

Re: Section 101 Determinations of Certain Materials or Products NPR

The following constitutes the comments of the Jewelers Vigilance Committee ("JVC") in response to the Federal Register Notice of January 15, 2008 regarding the Consumer Product Safety Improvement Act of 2008 (the "Act"). The JVC is an association that supports compliance with all laws pertaining to the production and sale of jewelry, with the purpose of promoting consumer confidence and safety. As such, the JVC is grateful for the opportunity to endorse the Commission's proposed rule, 16 CFR 1500.91, regarding substances used in the manufacture of fine jewelry. (Federal Register, Volume 74, No. 10, page 2433).

At section 101(a), the Act sets limits on lead content in children's products, and mandates testing of certain products. The proposed rule states that several itemized materials do not exceed the 600 ppm or 300 ppm lead content limits of the Act. These materials include precious gemstones, the semi-precious gemstones

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commonly used in fine jewelry, surgical steel and precious metals and alloys. [1]

The JVC supports the Act, and its emphasis on protecting children from exposure to lead. We also support the proposed rule, as it correctly acknowledges that the materials used in fine jewelry do not pose a risk of lead content above the mandated levels. The rule has the practical effect of exempting children's fine jewelry from the burdensome testing requirements of section 102 of the Act that might otherwise apply. Testing would impose a great expense on the industry, not warranted by the facts.

The JVC understands fully that, whether tested or not, jewelry products must meet the lead-level requirements of the Act. We stand ready to work with all in the industry, and with the Commission, to promote compliance with this, and every, law. Thank you for the opportunity to express our support of the proposed rule and for the attention that will be afforded this response.

Sincerely,

Cecilia L. Gardner

Cecilia L. Gardner
President, CEO and General Counsel

[1] In reaching its conclusion, the Commission relied on a memorandum issued by Kristina M. Hatelid, PhD, M.P.H., Toxicologist, Directorate for Health Sciences, *Consumer Product Safety Improvement Act of 2008 (CPSIA); Certain Materials or Products that Do Not Exceed the Limits for Lead Content.* December 2008. In her memo, Dr. Hatelid cites to the *Toxicological Profile for Lead (Update)," August 2007, issued by the U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry.* The *Profile* is an exhaustive description of lead, its health effects and uses.

## Stevenson, Todd

**From:** suzan [suzan@jvclegal.org]
**Sent:** Thursday, February 12, 2009 3:21 PM
**To:** Lead Determinations
**Subject:** Section 101 Determinations of Certain Materials or Products NPR
**Attachments:** eComments_CPSC_021209.doc.pdf

Attached please find the Comments of the Jewelers Vigilance Committee, submitted in response to the Federal Register Notice of January 15, 2009, Vol. 74, No. 10 page 2433. The original and four copies have also been submitted by mail.

Thank you for your attention to our submission, and for acknowledging receipt of this email and the attached document.

*Suzan Flamm*
Assistant General Counsel
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JEWELERS VIGILANCE COMMITTEE

*The Industry's Guardian of Ethics and Integrity*

Office of the Secretary
Consumer Product Safety Commission
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Bethesda, Maryland 20814

Via regular mail and e-mail:
Sec101Determinations@cpsc.gov

Dated: February 12, 2009

Re: Section 101 Determinations of Certain Materials or Products NPR

The following constitutes the comments of the Jewelers Vigilance Committee ("JVC") in response to the Federal Register Notice of January 15, 2008 regarding the Consumer Product Safety Improvement Act of 2008 (the "Act"). The JVC is an association that supports compliance with all laws pertaining to the production and sale of jewelry, with the purpose of promoting consumer confidence and safety. As such, the JVC is grateful for the opportunity to endorse the Commission's proposed rule, 16 CFR 1500.91, regarding substances used in the manufacture of fine jewelry. (Federal Register, Volume 74, No. 10, page 2433).

At section 101(a), the Act sets limits on lead content in children's products, and mandates testing of certain products. The proposed rule states that several itemized materials do not exceed the 600 ppm or 300 ppm lead content limits of the Act. These materials include precious gemstones, the semi-precious gemstones

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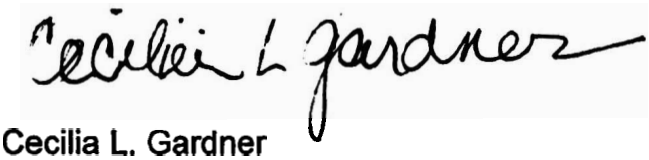
commonly used in fine jewelry, surgical steel and precious metals and alloys. [1]

The JVC supports the Act, and its emphasis on protecting children from exposure to lead. We also support the proposed rule, as it correctly acknowledges that the materials used in fine jewelry do not pose a risk of lead content above the mandated levels. The rule has the practical effect of exempting children's fine jewelry from the burdensome testing requirements of section 102 of the Act that might otherwise apply. Testing would impose a great expense on the industry, not warranted by the facts.

The JVC understands fully that, whether tested or not, jewelry products must meet the lead-level requirements of the Act. We stand ready to work with all in the industry, and with the Commission, to promote compliance with this, and every, law. Thank you for the opportunity to express our support of the proposed rule and for the attention that will be afforded this response.

Sincerely,



Cecilia L. Gardner
President, CEO and General Counsel

[1] In reaching its conclusion, the Commission relied on a memorandum issued by Kristina M. Hatelid, PhD, M.P.H., Toxicologist, Directorate for Health Sciences, *Consumer Product Safety Improvement Act of 2008 (CPSIA); Certain Materials or Products that Do Not Exceed the Limits for Lead Content.* December 2008. In her memo, Dr. Hatelid cites to the *Toxicological Profile for Lead (Update)," August 2007, issued by the U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry.* The *Profile* is an exhaustive description of lead, its health effects and uses.

213

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February 13, 2009

*Via Electronic Mail*

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Consumer Products Safety Commission
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Bethesda, Maryland 20814
Sec101Determinations@cpsc.gov

**Re: Section 101 Determinations of Certain Materials or Products NPR (74 Fed. Reg. 2433)**

Dear CPSC:

On behalf of the Leather Industries of America ("LIA"),[1] we are pleased to provide these comments on the Consumer Product Safety Commission's ("CPSC's" or "the Commission's") Notice of Proposed Rulemaking proposing preliminary determinations on lead content for products marketed to children.[2] LIA supports CPSC's preliminary determination that "untreated leather" does not exceed the lead content limits in Section 101(a) of the Consumer Product Safety Improvement Act of 2008 ("CPSIA"). Lead can only be imparted to leather products through very discreet and readily identifiable pathways. However, in limiting the preliminary determination to "untreated" leather, CPSC may inadvertently exclude *all* types and grades of leather from the preliminary determination. LIA believes that additional information on the materials and processes that would impart lead to leather would help the Commission draft a preliminary determination for the large majority of leather products that contain no lead while

1 LIA, formerly the Tanners' Council of America, was formed in 1917 and is one of the oldest trade associations in the United States. LIA currently represents 45 companies engaged in the tanning and/or marketing of leather, as well as 22 companies that supply the industry. Collectively, leather tanneries in the United States (SIC Code 3111) employ approximately 4,000 employees. LIA tannery members process a variety of hides and skins into leather for use in automobile and furniture upholstery, footwear, garments, luggage, bags and other fashion accessories.

2 74 Fed. Reg. 2433 (Jan. 15, 2009).

safely segregating those few types of leather that may contain small amounts of lead due to the use of pigments.

## I. LEATHER TANNING AND LEAD

Leather is made from the tanning and processing of animal skins and hides in order to preserve them, make them pliable and supple, and to impart stylistic, decorative, and/or protective benefits. While animal hides and skins are indeed naturally-occurring, leather is not.

Animal skins and hides do not contain lead, nor is lead ever used in the tanning or processing of leather. Lead is only imparted to leather when certain lead-containing pigments are used for, "painting," coating, or supplying other surface decorations.[3] While the use of lead-containing pigments is the only pathway for lead to be imparted to leather, the leather itself will not contain lead. Lead is insoluble and, when applied to leather, will remain on the surface and in the coating.

It is also critical for CPSC to distinguish dyes from pigments. Dyes are commonly used in leather tanning and do not contain lead. Dyes are soluble and are designed to penetrate the leather. Pigments rest on the surface of the leather. Because lead is insoluble, dyes and pigments can never be used interchangeably. Pigments are only used to paint or coat the surface of leather and lead-containing pigments constitute a small minority of all pigments used.

Despite the infrequent use of lead-containing pigments, LIA understands that CPSC needs to draw absolute distinctions between leathers that *never* contain lead and leathers where lead may be added, albeit infrequently. The following types of leather do not, and cannot, contain lead:

1. Suede
2. Nubuck
3. Aniline leather[4]
4. Waxy pull-up leather
5. Full oil-tanned leather
6. Chamois leather
7. Baseball leather
8. Parchment
9. Wool-on sheepskin leather[5]
10. Any other leather that has a transparent finish or no finish at all.

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[3] Yellow and orange pigments can contain lead chromate and/or lead sulfate. Red pigments can contain lead chromate, lead sulfate, lead molybdate, or a combination thereof.

[4] Aniline leather is a leather with a transparent (pigment-free) surface finish or an unfinished leather.

[5] If unfinished on the back (non-wool) side.

## II. RECOMMENDED CLARIFICATIONS

CPSC has developed a proposed category of preliminary determinations for "Certain Natural Materials," which requires that these materials must be "untreated and unadulterated" in any way that would lead to the addition of "materials or chemicals, including pigments, dyes coatings, finishes, or any other substance, and that do not undergo any processing that could result in the addition of lead into the product or material." CPSC further states that this proposed preliminary determination extends only to "untreated leather."

As drafted, these provisions would preclude use of the preliminary determination for *all leathers*. As stated above, all leather, by definition, is treated. Without treatment, hides would be nothing more than decomposing animal flesh. Treating leather requires the use of certain chemicals that do not contain lead. Leather only "contains" lead when it is coated with a lead pigment the same way *any product* would "contain" lead if coated with lead-containing pigments. As such, we recommend that CPSC clarify that the preliminary determination applies to listed "certain natural materials" so long as the material is not treated or adulterated with another lead-containing material, or by subsequent processing that results in the addition of lead. As currently drafted, the language could be interpreted as implying that all pigments, dyes, coatings, and finishes contain lead, which is not the case. Accordingly, we suggest rephrasing the provision in §1500.91(c) to read as follows (clarifying language in italics):

> . . . provided that these materials have neither been treated or adulterated with the addition of *lead-containing* materials or chemicals, such as *certain* pigments, nor undergone any processing that could result in the addition of lead into the product or material. . . .

Similarly, we request that CPSC omit the reference to "untreated leather" and replace it with "leather." Such a clarification would ensure that the determination properly extends to leather that is not treated with any lead-containing substances or processes – and would not inadvertently result in limiting the determination to raw animal hides.

We believe these clarifications would identify the "natural products" subject to the determination as intended by CPSC's proposed language and would be superior to listing each type or grade of leather that is not coated with a pigment (and therefore does not contain lead). However, if CPSC prefers to list specific leathers, we would appreciate the opportunity to provide CPSC with a full list of leathers that do not contain lead.

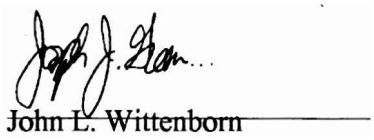
## III. CONCLUSION

LIA appreciates CPSC's proposal to create a preliminary determination of leather for purposes of CPSIA regulation. Leather is a versatile and lead-free product that has many useful applications in children's products and other products. While we believe that CPSC intended to provide this preliminary determination to all positively-identifiable lead-free leathers, the language of the proposal would, in fact, exclude all leathers. We believe that CPSC can safely address all lead exposure concerns with modest amendments that recognize that all leathers are

"treated" and that leather's lead pathways can be readily identified, safely segregated, and fully regulated.

We appreciate the opportunity to provide CPSC with these commends and recommendations. If you have any questions, please feel free to contact John Wittenborn at 202.342.8514 or jwittenborn@kelleydrye.com or Joe Green at 202.342.8849 or jgreen@kelleydrye.com.

Respectfully submitted,



John L. Wittenborn
Joseph J. Green
Counsel to the Leather Industries of America

## Stevenson, Todd

**From:** Green, Joseph J. [JGreen@KelleyDrye.com]
**Sent:** Friday, February 13, 2009 4:15 PM
**To:** Lead Determinations
**Cc:** Wittenborn, John
**Subject:** Section 101 Determinations of Certain Materials or Products NPR (74 Fed. Reg. 2433) - Comments of the Leather Industries of America
**Attachments:** CPSC Section 101 Determinations - LIA Comments.pdf

Attached please find comments submitted on behalf of the Leather Industries of America.

Please let us know if you have any questions.
Regards,

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214

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February 13, 2009

*Via Electronic Mail*

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Sec101Determinations@cpsc.gov

**Re: Section 101 Determinations of Certain Materials or Products NPR (74 Fed. Reg. 2433)**

Dear CPSC:

On behalf of the Specialty Steel Industry of North America ("SSINA"),[1] we are pleased to provide these comments on the Consumer Product Safety Commission's ("CPSC's" or "the Commission's") proposed rulemaking to establish preliminary determinations on lead content for products marketed to children.[2] SSINA supports the Commission's preliminary determination that surgical steel does not exceed the lead content limits in Section 101(a) of the Consumer Product Safety Improvement Act of 2008 ("CPSIA"). In addition, these comments provide background on the stainless steelmaking process and additional information to assist CPSC in identifying the numerous grades of stainless steel that do not contain lead above CPSIA limits. Specifically, we request CPSC to determine that stainless steels classified as 200, 300, 400 or Duplex series (according to industry standards) do not contain lead at levels that exceed CPSIA limits.

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1 SSINA is a voluntary trade association representing virtually all of the North American production of specialty steel products, including stainless, electrical, tool, magnetic, and other alloy steels.

2 74 Fed. Reg. 2433 (Jan. 15, 2009)

## I. THE STAINLESS STEELMAKING PROCESS

Manufacturing stainless steel requires precise mixtures of metals and alloying elements, and the feedstock must be free of contaminants or tramp metals, such as lead. The primary feedstock for the stainless steelmaking process is scrap metal. At the end of their useful life, metal and metal-containing products such as automobiles, appliances, and construction and demolition scraps, are shredded into fist-sized pieces so that they can be melted into new products. Stainless steel mills often utilize several scrap suppliers and require all suppliers to adhere to exacting production specifications. The product specifications typically require extremely strict lead content limits (typically 0.005 percent or less).

The culled scrap metal is introduced into an electric arc furnace ("EAF") (or similar furnace) in order to reduce the solids into a molten mixture. Various alloys and metals are added into the mixture depending on the type of stainless steel being produced. **Lead is not used as an intentional alloying element in any standardized stainless steel grade.**[3] Lead is used in certain free-machining carbon steels("leaded steels") for which the low melting temperature of lead serves as a lubricant (a useful property, for example, for certain cutting tool steels). In contrast, with stainless steel, free-machining properties are provided by low temperature melting sulfides, rather than lead.

Lead melts at 620 degrees Fahrenheit. When melted, the molten metal picks up oxygen to form lead oxide until the metal/oxide is in balance. In the EAF (under a condition known as "oxygen partial pressure"), lead oxide will start to form gas bubbles at a temperature between 1320 and 2100 degrees (F). As soon as the stainless steel becomes liquid (at about 2600 degrees (F)) in the furnace, the gas bubbles will try to emerge to the surface. The subsequent refining stages – converter or vacuum processes – assist in purging the lead oxide "bubbles" from the molten steel.

The typical converter process is known as argon oxygen decarburization ("AOD").[4] The AOD unit is unique to stainless steelmaking and is designed to purify the steel by efficiently removing impurities, including any tramp lead, that may be present in the molten steel. During the three-step AOD process, superheated gases, including oxygen, are introduced to the molten steel in order to reduce carbon and to burn off volatiles such as lead. The boiling and vaporization level of lead is substantially lower than that of steel and, in high heat environments such as the EAF and the AOD, lead is literally vaporized into the air, where it is captured by the facility's air pollution control equipment and disposed of in accordance with waste regulations. The introduction of oxygen is used to oxidize all the carbon into carbon dioxide. Any remaining lead reacts similarly and converts to a lead oxide that vents to a baghouse from the AOD exhaust.

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[3] The chemical composition tables for various grades of stainless steel presented below show that lead is not a constituent of stainless steels.

[4] Other converter process units include CLU, K-OBM-S, MRP, ASM, SFR, and BOF converters.

SSINA obtained information on the two most commonly used AODs in the stainless steel industry. Both of these units, produced by Whiting Equipment Canada, Inc. ("Whiting) and Praxair, guarantee lead removal to less than 0.001 percent.[5] Seventy-five percent of the world's stainless steel is purified in a Praxair AOD and Whiting has produced more than 70 percent of North American AODs. If CPSC desires, SSINA can provide similar information on remaining AODs in use in the stainless steel industry. Regardless, all AODs in the stainless steel industry must operate with similar efficiency. If these units cannot remove impurities, such as lead, with the same efficiency as the Whiting or the Praxair models, then, by definition, they are not producing "stainless steel" to the required customer specifications.

The other most prominent type of refining operation involves vacuum processes. Under vacuum pressure, lead/lead oxide will start to gasify at 1320 degrees (F), *i.e.*, long before the stainless steel becomes molten (at about 2600 degrees (F)). As soon as the stainless steel is liquid, the gas bubbles will start a boil and emerge to the surface. Like the AOD process, vacuum melting and/or refining guarantees very low lead content. Typical vacuum processes include vacuum arc remelting ("VAR"), vacuum oxygen decarburization ("VOD"), and vacuum induction melting ("VIM"), as well as electron beam.

Lead removal and minimization is critical in stainless steelmaking due to the detrimental effect lead has on "hot ductility" – that is, the ability of the product to undergo subsequent forging and hot rolling into various shapes and sizes. Serious production problems arise, in forging and hot rolling, if lead levels exceed 5 ppm. Accordingly, stainless steel manufacturers keep a close watch to ensure that lead levels are minimized in not only the EAF and secondary refining processes, but also in subsequent stages (such as transport in the tundish and during casting operations).

In sum, stainless steel manufacture involves secondary refining processes, such as the AOD and vacuum processes described above, intended to fine tune the alloy chemistry and, most importantly for CPSIA purposes, remove any remaining impurities from the molten steel alloy. This is necessary in order to produce the product to the exacting specifications for the particular alloy. As shown in the comments below, each type of stainless steel has very detailed specifications which prescribe the chemical composition necessary for the intended application of the particular alloy.

## II. LEAD AND STAINLESS STEEL

Lead is not an intentionally added ingredient of stainless steel. When present, it is as an impurity that can be carried into the molten steel bath from the scrap feedstock. However, even when lead finds its way into the feedstock, the EAF and AOD volatize and oxidize nearly all the lead so that the finished stainless steel product is virtually lead free and below even the strictest CPSIA limits (0.01 % or 100 ppm).

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[5] Please see attached data sheets from manufacturers.

Stainless steel is set apart from all other steels because of its strength and anticorrosive properties. Those anticorrosive properties do not occur in nature or by accident, but are the result of precise chemistry and exacting purification. The reality of scrap-based stainless steelmaking is that, while small amounts of lead can find its way into the feedstock, the fundamental chemistry of the production process requires an intense purification environment in which, through evaporation, vaporization, and oxidation, lead simply cannot be carried through to the final product above CPSIA limits.

We have attached a compendium of several thousand data points collected by one SSINA member from 1998-2008 showing the lead content analysis of various grades of stainless steels (including representative samples from each of the four major types of stainless steel – 200, 300, 400, and Duplex series).[6] The data show that lead may be present at levels around 1 ppm, with the highest detected level at 9.1 ppm (or 0.00091%).

## III. CLARIFICATION OF "SURGICAL STEEL"

"Surgical steel," for which CPSC has appropriately proposed to make a preliminary determination of compliance with the CPSIA limits, is a form of "stainless steel" that is especially well-suited to surgical applications. The same properties which make it popular in the operating room have also led to demand for surgical steel in body piercing jewelry and body modification implants. Several steel manufacturers produce surgical steel, with numerous companies making a range of surgical steel products of varying degrees of hardness and tensile strength, depending on the precise ingredients in the alloy needed.

Most surgical instruments are made from martensitic steel, a grade of stainless steel that is known for its exceptional hardness, as well as corrosion resistance. Softer austenetic surgical steel typically is used for surgical implants, as well as body piercings and similar jewelry. The most common austenitic grades used for these purposes are 316L and 316 LVM.

"Surgical steel" grades also are commonly employed in food preparation, pharmaceutical manufacturing, and similar environments where strength and corrosion resistance are important.

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[6] The attached summary of data points uses a unique "grade code" to identify the type of stainless steel. Generally, those codes correspond as follows to the traditional 200, 300, 400, and Duplex Series steels discussed below:

. 1xxx: 300 series

2xxx: 300 series

5xxx: 400 series

6xxx: Duplex series

7xxx: 200 series

In short, "surgical steel" is a generic name that encompasses a variety of possible grades of stainless steel. Further explanation of these grades is provided below.

## IV. REQUEST FOR EXTENSION OF PRELIMINARY DETERMINATION TO ADDITIONAL STAINLESS STEELS

The same intense purification processes that produce surgical steels with lead contents well below CPSIA limits is used in all stainless steel production. Stated simply, lead will not be present in amounts close to or above even the strictest CPSIA limit (0.01 percent or 100 ppm) in stainless steel products where lead is not an intentionally added ingredient. As noted above, only small amounts of lead enter the feedstock as a contaminant and intense purification processes guarantee lead removal to less than 0.001 percent. The attached data show that, in practice, lead may only be present at trace levels (~1 ppm) in stainless steels.

Accordingly, SSINA requests CPSC to make a preliminary determination that the common grades of stainless steels identified below – 200, 300, 400 and Duplex series stainless steels – do not contain lead in amounts that exceed CPSIA limits (the 100 ppm limit, as well as the interim 600 ppm and 300 ppm limits).[7]

Stainless steels are iron-based alloys that contain at least 10.5 percent chromium. There are over 100 grades of "stainless steel." Several methods are commonly used to identify stainless steels, including classification by:

1. Metallurgical structure — austenitic, ferritic, martensitic, precipitation hardening, or duplex;

2. The American Iron and Steel Institute ("AISI") and The Society of Automotive Engineers ("SAE") joint numbering system — namely 200, 300, and 400 series numbers (AISI stopped issuing numbers in 1995 but their numbers live on as common names);

3. The Unified Numbering System, which ASTM and SAE developed to apply to all commercial metals and alloys; and

4. Trade names — generally used with proprietary or special analysis stainless steels.

For purposes of these comments, we are focused on the four major stainless steel grades – austenitic, ferritic, martensitic, and duplex – and, for purposes of issuing a preliminary determination of compliance with CPSIA limits, recommend identifying the stainless steels according to their AISI/SAE numbering system series and the Duplex numbering system.

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[7] As specified in the proposed rule, the preliminary determination for stainless steels would assume that no lead is intentionally added, which, as described above, is the case with stainless steels.

Following is a characterization of each group and identification of the four major grades of stainless steels noted above. Following each description is a chart with the chemical composition of the common types of stainless steel under each category (with SAE, UNS and AISI numbering codes). The specifications make clear that lead is not an intentionally added element for any of these types of stainless steel. Moreover, as detailed above, the stainless steel manufacturing process ensures that tramp lead from the scrap supply is minimized to a content level of no more than 0.001%.

**Austenitic** stainless steels are those containing chromium, nickel and, sometimes, manganese as the principal alloying elements. They are identified as 200 series or 300 series types. Type 304 is the most commonly specified austenitic stainless steel, accounting for more than half of the stainless steel produced in the world. Type 304 is available in virtually all product forms and finishes. It is often known as "18-8 stainless steel" (which refers to 18 percent chromium, 8 percent nickel). There are numerous variations of Type 304, involving the adjustment or addition of various alloying elements to impart specific desired properties. For example, (1) the chromium/nickel ratio is modified to create Types 301 and 305; (2) the carbon content is decreased for Types 304L and 316L; (3) columbium or titanium are added for Types 347 and 321; (4) molybdenum is added or the chromium and nickel contents increased in Types 309, 310, 316 and 317; (5) sulfur is adjusted in Type 303; and (6) nitrogen content is increased in Types 304N and 316N.

Type 316, including 316L, is another of the most common types of austenitic stainless steels, and typically contains 2-3% molybdenum. The inclusion of molybdenum gives 316 greater resistance to various forms of deterioration.

The 200 series stainless steels typically involve the replacement of some of the nickel content with manganese. In other respects, the 200 series, particularly Types 201, 202, 203, and 205, are counterparts to the 300 series Types 301, 302, 303, and 305.

**Standard 200 series austenitic grades**

| Designation | | | Chemical composition % by mass max unless stated | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UNS No | SAE No | Common Name | C | Si | Mn | P | S | Cr | Mo | Ni | Others |
| | | | | | | | | | | | |
| S20100 | 30201 | 201 | 0.15 | 1.00 | 5.50/7.50 | 0.060 | 0.030 | 16.0/18.0 | - | 3.50/5.50 | N 0.25 |
| S20103 | - | - | 0.03 | 0.75 | 5.5/7.5 | 0.045 | 0.030 | 16.0/18.0 | - | 3.5/5.5 | N 0.25 |
| S20153 | - | - | 0.03 | 0.75 | 6.4/7.5 | 0.045 | 0.015 | 16.0/17.5 | - | 4.0/5.0 | N 0.10/0.25; Cu 1.00 |
| S20161 | - | Gall-Tough | 0.15 | 3.0/4.0 | 4.0/6.0 | 0.040 | 0.040 | 15.0/18.0 | - | 4.0/6.0 | N 0.08/0.20 |
| S20162 | - | - | 0.15 | 2.5/4.5 | 4.0/8.0 | 0.040 | 0.040 | 16.5/21.0 | 0.05/0.25 | 6.0/10.0 | N 0.05/0.25 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S20200 | 30202 | 202 | 0.15 | 1.00 | 7.50/10.0 | 0.060 | 0.030 | 17.0/19.0 | - | 4.00/6.00 | N 0.25 |
| S20300 | - | XM-1 (203EZ) | 0.08 | 1.00 | 5.0/6.5 | 0.045 | 0.18/0.35 | 16.0/18.0 | - | 5.0/6.5 | Cu 1.75/2.25 |
| S20400 | - | - | 0.030 | 1.00 | 7.0/9.0 | 0.040 | 0.030 | 15.0/17.0 | - | 1.50/3.00 | N 0.15/0.30 |
| S20500 | - | 205 | 0.12/0.25 | 1.00 | 14.0/15.5 | 0.060 | 0.030 | 16.5/18.0 | - | 1.0/1.7 | N 0.32/0.40 |
| S20910 | - | XM-19 (Nitronic 50) | 0.06 | 0.75 | 4.0/6.0 | 0.040 | 0.030 | 20.5/23.5 | 1.50/3.00 | 11.5/13.5 | Nb 0.10/0.30; V 0.10/0.30 |
| S21400 | - | XM-31 (Tenelon) | 0.12 | 0.30/1.00 | 14.0/16.0 | 0.045 | 0.030 | 17.0/18.5 | - | 1.00 | - |
| S21460 | - | XM-14 | 0.12 | 0.75 | 14.0/16.0 | 0.060 | 0.030 | 17.0/19.0 | - | 5.0/6.0 | N 0.35/0.50 |
| S21600 | - | XM-17 (216) | 0.08 | 0.75 | 7.5/9.0 | 0.045 | 0.030 | 17.5/22.0 | 2.00/3.00 | 5.0/7.0 | N 0.25/0.50 |
| S21603 | - | XM-18 (216L) | 0.03 | 0.75 | 7.5/9.0 | 0.045 | 0.030 | 17.5/22.0 | 2.00/3.00 | 5.0/7.0 | N 0.25/0.50 |
| S21800 | - | Nitronic 60 | 0.10 | 3.5/4.5 | 7.0/9.0 | 0.060 | 0.030 | 16.0/18.0 | - | 8.0/9.0 | N 0.08/0.18 |
| S21900 | - | 21-6-9 (Nitronic 40) | 0.08 | 1.00 | 8.00/10.00 | 0.045 | 0.030 | 19.0/21.50 | - | 5.50/7.50 | N 0.15/0.40 |
| S21904 | - | XM-11 (Nitronic 40) | 0.04 | 1.00 | 8.00/10.00 | 0.045 | 0.030 | 19.00/21.50 | - | 5.50/7.50 | N 0.15/0.40 |
| S24000 | - | XM-29 (Nitronic 33) | 0.08 | 0.75 | 11.5/14.5 | 0.060 | 0.030 | 17.0/19.0 | - | 2.3/3.7 | N 0.20/0.40 |
| S24100 | - | 18-2Mn (Nitronic 32) | 0.15 | 1.00 | 11.0/14.0 | 0.045 | 0.030 | 16.5/19.00 | - | 0.50/2.50 | N 0.20/0.45 |
| S28200 | - | 18-18 Plus | 0.15 | 1.00 | 17.00/19.00 | 0.045 | 0.030 | 17.00/19.00 | 0.75/1.25 | - | N 0.40/0.60; Cu 0.75/1.25 |

**Standard 300 series austenitic grades**

| **Designation** | | | **Chemical composition % by mass max unless stated** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UNS No | SAE No | Common Name | C | Si | Mn | P | S | Cr | Mo | Ni | Others |
| S30100 | 30301 | 301 | 0.15 | 1.00 | 2.00 | 0.045 | 0.030 | 16.0/18.0 | - | 6.00/8.00 | N 0.10 |
| S30103 | - | 301L | 0.03 | 1.00 | 2.00 | 0.045 | 0.030 | 16.0/18.0 | - | 6.00/8.00 | N 0.20 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S30153 | - | 301LN | 0.03 | 1.00 | 2.00 | 0.045 | 0.030 | 16.0/18.0 | - | 6.00/8.00 | N 0.07/0.20 |
| S30200 | 30302 | 302 | 0.15 | 0.75 | 2.00 | 0.045 | 0.030 | 17.0/19.0 | - | 8.00/10.0 | - |
| S30215 | 30302B | 302B | 0.15 | 2.00/3.00 | 2.00 | 0.045 | 0.030 | 17.0/19.0 | - | 8.00/10.0 | - |
| S30300 | 30303 | 303 | 0.15 | 1.00 | 2.00 | 0.20 | 0.15 min | 17.0/19.0 | 0.60 | 8.00/10.0 | Zr 0.60 |
| S30310 | - | XM-5 (303Plus x) | 0.15 | 1.00 | 2.50/4.50 | 0.20 | 0.25 min | 17.00/19.00 | - | 7.00/9.00 | - |
| S30323 | 30303Se | 303Se | 0.15 | 1.00 | 2.00 | 0.20 | 0.060 | 17.0/19.0 | - | 8.00/10.0 | Se 0.15 min |
| S30330 | - | 303Cu | 0.15 | 1.00 | 2.00 | 0.15 | 0.10 min | 17.00/19.00 | - | 6.00/10.00 | Cu 2.5/4.00; Se 0.10 |
| S30400 | 30304 | 304 | 0.08 | 0.75 | 2.00 | 0.045 | 0.030 | 18.0/20.0 | - | 8.00/10.5 | - |
| S30403 | 30304L | 304L | 0.03 | 0.75 | 2.00 | 0.045 | 0.030 | 18.0/20.0 | - | 8.00/12.0 | - |
| S30430 | - | 302HQ | 0.03 | 1.00 | 2.00 | 0.045 | 0.030 | 17.0/19.0 | - | 8.0/10.0 | Cu 3.0/4.0 |
| S30452 | - | XM-21 (304HN) | 0.08 | 1.00 | 2.00 | 0.045 | 0.030 | 18.0/20.0 | - | 8.00/10.00 | N 0.16/0.30 |
| S30453 | - | 304LN | 0.030 | 0.75 | 2.00 | 0.045 | 0.030 | 18.0/20.0 | - | 8.00/12.0 | N 0.10/0.16 |
| S30454 | - | - | 0.03 | 1.00 | 2.00 | 0.045 | 0.030 | 18.0/20.0 | - | 8.0/11.0 | N 0.16/0.30 |
| S30500 | 30305 | 305 | 0.12 | 1.00 | 2.00 | 0.045 | 0.030 | 17.0/19.0 | - | 10.5/13.0 | - |
| S30800 | 30308 | 308 | 0.08 | 1.00 | 2.00 | 0.045 | 0.030 | 19.0/21.0 | - | 10.0/12.0 | - |
| S31600 | 30316 | 316 | 0.08 | 1.00 | 2.00 | 0.045 | 0.030 | 16.0/18.0 | 2.00/3.00 | 10.0/14.0 | - |
| S31603 | 30316L | 316L | 0.03 | 1.00 | 2.00 | 0.045 | 0.030 | 16.0/18.0 | 2.00/3.00 | 10.0/14.0 | - |
| S31635 | - | 316Ti | 0.08 | 0.75 | 2.00 | 0.045 | 0.030 | 16.0/18.0 | 2.00/3.00 | 10.0/14.0 | Ti 5x (C+N) / 0.70 |
| S31640 | - | 316Cb | 0.08 | 0.75 | 2.00 | 0.045 | 0.030 | 16.0/18.0 | 2.00/3.00 | 10.0/14.0 | Nb 10x C / 1.10 |
| S31653 | - | 316LN | 0.03 | 0.75 | 2.00 | 0.045 | 0.030 | 16.0/18.0 | 2.00/3.00 | 10.0/14.0 | N 0.10/0.16 |
| S31700 | 30317 | 317 | 0.08 | 1.00 | 2.00 | 0.045 | 0.030 | 18.0/20.0 | 3.00/4.00 | 11.0/15.0 | - |
| S31703 | - | 317L | 0.030 | 0.75 | 2.00 | 0.045 | 0.030 | 18.0/20.0 | 3.00/4.00 | 11.0/15.0 | N 0.10 |
| S31725 | - | 317LM | 0.030 | 0.75 | 2.00 | 0.045 | 0.030 | 18.0/20.0 | 4.0/5.0 | 13.5/17.5 | N 0.20 |
| S31726 | - | 317LMN | 0.030 | 0.75 | 2.00 | 0.045 | 0.030 | 17.0/20.0 | 4.0/5.0 | 13.5/17.5 | N 0.10/0.20 |
| S31753 | - | 317LN | 0.030 | 0.75 | 2.00 | 0.045 | 0.030 | 18.0/20.0 | 3.0/4.0 | 11.0/15.0 | N 0.10/0.20 |
| S32100 | 30321 | 321 | 0.08 | 1.00 | 2.00 | 0.045 | 0.030 | 17.0/19.0 | - | 9.00/12.0 5 | Ti 5 x C min |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S34700 | 30347 | 347 | 0.08 | 1.00 | 2.00 | 0.045 | 0.030 | 17.0/19.0 | - | 9.00/13.0 | Nb+Ta 10 x C min |
| S34720 | - | 347F | 0.08 | 1.00 | 2.00 | 0.040 | 0.18/0.35 | 17.00/19.00 | 0.75 | 9.00/12.00 | Nb 10xC / 1.10; Cu 0.75; Ta 0.05 |
| S34723 | - | 347FSe | 0.08 | 1.00 | 2.00 | 0.11/0.17 | 0.030 | 17.00/19.00 | 0.75 | 9.00/12.00 | Nb 10xC / 1.10; Cu 0.75; Se 0.15/0.35; Ta 0.05 |
| S34800 | 30348 | 348 | 0.08 | 0.75 | 2.00 | 0.045 | 0.030 | 17.0/19.0 | - | 9.00/13.0 | Nb+Ta 10 x C / 1.00; Ta:0.10 max; Co 0.20 |
| S38400 | 30384 | 384 | 0.08 | 1.00 | 2.00 | 0.045 | 0.030 | 15.0/17.0 | - | 17.0/19.0 | - |

**Ferritic** stainless steels are identified by 400 series numbers, and are characterized by chromium as the predominant alloying element. The base composition is Type 430, with nominally 17 percent chromium. The free-machining ferritic is Type 430F. Other ferritic stainless steels include those with about 18 percent chromium, such as Type 444, and those with more than 18 percent chromium.

Type 430 is the most widely used ferritic stainless steel, offering general-purpose corrosion resistance, often in decorative applications.

Type 409 is another common form of ferritic stainless steel suitable for high temperatures. This grade has the lowest chromium content of all stainless steels and thus is the least expensive.

**Standard ferritic grades**

| **Designation** | | | **Chemical composition % by mass max unless stated** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UNS No | SAE No | Common Name | C | Si | Mn | P | S | Cr | Mo | Ni | Others |
| S18200 | - | XM-34 (18-2FM) | 0.08 | 1.00 | 2.50 | 0.04 | 0.15 min | 17.5/19.5 | 1.50/2.50 | - | - |
| S18235 | - | - | 0.025 | 1.00 | 0.50 | 0.030 | 0.15/0.35 | 17.5/18.5 | 2.00/2.50 | 1.00 | N 0.025; (C+N) 0.035; Ti 0.30/1.00 |
| S40300 | 51403 | 403 | 0.15 | 0.50 | 1.00 | 0.040 | 0.030 | 11.5/13.0 | - | - | - |
| S40500 | 51405 | 405 | 0.08 | 1.00 | 1.00 | 0.040 | 0.030 | 11.5/14.5 | - | - | Al 0.10./0.30 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S40800 | - | - | 0.08 | 1.00 | 1.00 | 0.045 | 0.045 | 11.5/13.0 | - | 0.50 | Ti 12xC/1.10 |
| S40900 | 51409 | 409 | 0.08 | 1.00 | 1.00 | 0.045 | 0.045 | 10.5/11.75 | - | 0.50 | Ti 6xC/0.75 |
| S40910 | - | - | 0.030 | 1.00 | 1.00 | 0.040 | 0.020 | 10.5/11.7 | - | 0.50 | N 0.030; Ti: 6x(C+N)/0.50; Nb 0.17 |
| S40920 | - | - | 0.030 | 1.00 | 1.00 | 0.040 | 0.020 | 10.5/11.7 | - | 0.50 | N 0.030; Ti 0.15/0.50; Nb 0.10 |
| S40930 | - | - | 0.030 | 1.00 | 1.00 | 0.040 | 0.020 | 10.5/11.7 | - | 0.50 | N 0.030; (Ti+Nb) [0.08+8x(C+N)]/0.75; Ti 0.05 |
| S40945 | - | - | 0.030 | 1.00 | 1.00 | 0.040 | 0.030 | 10.5/11.7 | - | 0.50 | N 0.030; Ti 0.05/0.20; Nb 0.18/0.40 |
| S40975 | - | - | 0.030 | 1.00 | 1.00 | 0.040 | 0.030 | 10.5/11.7 | - | 0.50/1.00 | N 0.030; Ti: 6x(C+N)/0.75 |
| S40976 | - | - | 0.030 | 1.00 | 1.00 | 0.040 | 0.030 | 10.5/11.7 | - | 0.75/1.00 | N 0.040; Nb 10x(C+N)-0.80 |
| S40977 | - | - | 0.030 | 1.00 | 1.00 | 0.040 | 0.015 | 10.5/12.5 | - | 0.30/1.00 | N 0.030 |
| S41003 | - | - | 0.030 | 1.00 | 1.50 | 0.040 | 0.030 | 10.5/12.5 | - | 1.50 | - |
| S41008 | - | 410S | 0.08 | 1.00 | 1.00 | 0.040 | 0.030 | 11.5/13.5 | - | - | - |
| S41045 | - | - | 0.030 | 1.00 | 1.00 | 0.040 | 0.030 | 12.0/13.0 | - | 0.50 | N 0.030; Nb 9x(C+N)/0.60 |
| S41050 | - | - | 0.04 | 1.00 | 1.00 | 0.040 | 0.030 | 10.5/12.5 | - | 0.60/1.10 | N 0.10 |
| S41500 | - | - | 0.05 | 0.60 | 0.50/1.00 | 0.030 | 0.030 | 11.5/14.0 | 0.50/1.00 | 3.5/5.5 | - |
| S41603 | - | - | 0.08 | 1.00 | 1.25 | 006 | 0.15min | 12.0/14.0 | - | - | - |
| S42035 | - | - | 0.08 | 1.00 | 1.00 | 0.045 | 0.030 | 13.5/15.5 | 0.2/1.2 | - | Ti 0.30/0.50 |
| S43000 | 51430 | 430 | 0.12 | 1.00 | 1.00 | 0.040 | 0.030 | 16.0/18.0 | - | - | - |
| S43020 | 51430F | 430F | 0.12 | 1.00 | 1.25 | 0.060 | 0.15 min | 16.0/18.0 | 0.60 | - | - |
| S43023 | 51430FSe | 430FSe | 0.12 | 1.00 | 1.25 | 0.060 | 0.060 | 16.0/18.0 | - | - | Se 0.15 |
| S43036 | - | 430Ti | 0.10 | 1.00 | 1.00 | 0.040 | 0.030 | 16.00/19.50 | - | 0.75 | Ti 5xC/0.75 |
| S43400 | 51434 | 434 | 0.08 | 1.00 | 1.00 | 0.040 | 0.030 | 16.0/18.0 | 0.75/1.25 | - | - |
| S43600 | 51436 | 436 | 0.08 | 1.00 | 1.00 | 0.040 | 0.030 | 16.0/18.0 | 0.75/1.25 | - | Nb+Ta 5xC/0.70 |
| S44200 | 51442 | 442 | 0.20 | 1.00 | 1.00 | 0.040 | 0.035 | 18.0/23.0 | - | - | - |

**Martensitic** stainless steels are chromium-based alloys bearing AISI 400 series numbers, but having a carbon-to-chromium ratio higher than the ferritic group. Type 410 is the most widely used martensitic stainless steel, featuring a high level of strength. It is a low-cost, heat-treatable grade suitable for non-severe corrosion applications. Some of the martensitics have been modified to improve machinability, such as Types 416, 420F, and 440F.

## Martensitic and precipitation hardening grades

| Designation | | | Chemical composition % by mass max unless stated | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UNS No | SAE No | Common Name | C | Si | Mn | P | S | Cr | Mo | Ni | Others |
| S13800 | - | XM-13 PH13-8Mo | 0.05 | 0.10 | 0.20 | 0.010 | 0.008 | 12.25/13.25 | 2.00/2.50 | 7.50/8.50 | N 0.01; Al 0.90/1.35 |
| S15500 | - | XM-12 15-5PH | 0.07 | 1.00 | 1.00 | 0.040 | 0.030 | 14.0/15.5 | - | 3.50/5.50 | Cu 2.5/4.5; Nb 0.15/0.45 |
| S15700 | - | 632 15-7PH | 0.09 | 1.00 | 1.00 | 0.040 | 0.030 | 14.00/16.00 | 2.00/3.00 | 6.50/7.25 | Al 0.75/1.50 |
| S17400 | - | 630 17-4PH | 0.07 | 1.00 | 1.00 | 0.040 | 0.030 | 15.5/17.5 | - | 3.00/5.00 | Cu 3.00/5.00; Al 0.15/0.45 |
| S17600 | - | 635 | 0.08 | 1.00 | 1.00 | 0.040 | 0.030 | 16.00/17.50 | - | 6.00/7.50 | Al 0.40; Ti 0.40/1.20 |
| S17700 | - | 631 17-7PH | 0.09 | 1.00 | 1.00 | 0.040 | 0.040 | 16.00/18.00 | - | 6.50/7.75 | Al 0.75/1.50 |
| S35000 | - | 633 | 0.07/0.11 | 0.50 | 0.50/1.25 | 0.040 | 0.030 | 16.00/17.00 | 2.50/3.25 | 4.00/5.00 | N 0.07/0.13 |
| S35500 | - | 634 | 0.10/0.15 | 0.50 | 0.50/1.25 | 0.040 | 0.030 | 15.00/16.00 | 2.50/3.25 | 4.00/5.00 | N 0.07/0.13 |
| S41000 | 51410 | 410 | 0.15 | 1.00 | 1.00 | 0.040 | 0.030 | 11.5/13.5 | - | - | - |
| S41040 | - | XM-30 | 0.18 | 1.00 | 1.00 | 0.040 | 0.030 | 11.0/13.0 | - | - | Nb 0.05/0.30 |
| S41400 | 51414 | 414 | 0.15 | 1.00 | 1.00 | 0.040 | 0.030 | 11.5/13.5 | - | 1.25/2.50 | - |
| S41500 | - | - | 0.05 | 0.60 | 0.50/1.00 | 0.030 | 0.030 | 11.5/14.0 | 0.50/1.00 | 3.5/5.5 | - |
| S41600 | 51416 | 416 | 0.15 | 1.00 | 1.25 | 0.060 | 0.15 min | 12.0/14.0 | 0.60 | - | Zr 0.60 |
| S41610 | - | XM-6 (416 Plus X) | 0.15 | 1.00 | 1.50/2.50 | 0.06 | 0.15 min | 12.0/14.0 | - | - | - |
| S41623 | 51416Se | 416Se | 0.15 | 1.00 | 1.25 | 0.060 | 0.060 | 12.0/14.0 | - | - | Se 0.15 min |
| S42000 | 51420 | 420 | 0.15 min | 1.00 | 1.00 | 0.040 | 0.030 | 12.0/14.0 | - | - | - |
| S42010 | - | Trim Rite | 0.15/0.30 | 1.00 | 1.00 | 0.040 | 0.030 | 13.5/15.00 | 0.40/0.85 | 0.35/0.85 | - |
| S42020 | 51420F | 420F | 0.15 min | 1.00 | 1.25 | 0.060 | 0.15 min | 12.0/14.0 | 0.60 | - | - |
| S42023 | 51420FSe | 420FSe | 0.30/0.40 | 1.00 | 1.25 | 0.060 | 0.060 | 12.0/14.0 | - | - | Se 0.15 min |
| S42900 | 51429 | 429 | 0.12 | 1.00 | 1.00 | 0.040 | 0.030 | 14.0/16.0 | - | - | - |
| S43100 | 51431 | 431 | 0.20 | 1.00 | 1.00 | 0.040 | 0.030 | 15.0/17.0 | - | 1.25/2.50 | - |
| S44002 | 51440A | 440A | 0.60/0.75 | 1.00 | 1.00 | 0.040 | 0.030 | 16.0/18.0 | 0.75 | - | - |
| S44003 | 51440B | 440B | 0.75/0.95 | 1.00 | 1.00 | 0.040 | 0.030 | 16.0/18.0 | 0,75 | - | - |
| S44004 | 51440C | 440C | 0.95/1.20 | 1.00 | 1.00 | 0.040 | 0.030 | 16.0/18.0 | 0.75 | - | - |
| S44020 | 51440F | 440F | 0.95/1.20 | 1.00 | 1.25 | 0.060 | 0.15 min | 16.0/18.0 | 0.75 | - | Zr 0.75 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S44023 | 51440FSe | 440FSe | 0.95/1.20 | 1.00 | 1.25 | 0.060 | 0.060 | 16.0/18.0 | - | - | Se 0.15 min |
| S45000 | - | XM-25 Custom 450 | 0.05 | 1.00 | 1.00 | 0.030 | 0.030 | 14.00/16.00 | 0.50/1.00 | 5.00/7.00 | Cu 1.25/1.75; Nb 8xC min |
| S45500 | - | XM-16 Custom 455 | 0.05 | 0.50 | 0.50 | 0.040 | 0.030 | 11.00/12.50 | 0.50 | 7.50/9.50 | Cu 1.50/2.50; Nb 0.10/0.50 |
| S45503 | - | - | 0.010 | 0.20 | 0.50 | 0.010 | 0.010 | 11.00/12.50 | 0.50 | 7.50/9.50 | Cu 1.50/2.50; Ti 1.00/1.35 |
| S46500 | - | - | 0.02 | 0.25 | 0.25 | 0.015 | 0.010 | 11.00/12.50 | 0.75/1.25 | 10.75/11.25 | Mo 0.75/1.25; Ti 1.50/1.80 |
| S66286 | - | A286 | 0.08 | 1.00 | 2.00 | 0.040 | 0.030 | 13.50/16.00 | 1.00/1.50 | 24.0/27.0 | Al 0.35; B 0.0010/0.010; Ti 1.90/2.35; V 0.10/0.50 |

**Duplex** stainless steels are a mixture of the 300 and 400 series. They have a structure that is roughly 50% austenite and 50% ferrite. The duplex grades typically involve replacement of some of the nickel with nitrogen. The duplex structure provides some unique properties, including added strength and increased resistance to corrosion. The most commonly used alloy the duplex series is 2205, UNS S32205, which has been widely used for more than 30 years.

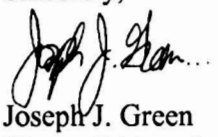
The duplex grades are produced in the same metallurgical equipment as previously described. Due to their duplex structure, these alloys have an inherent "hot ductility" problem. For this reason it is extremely important that lead content be minimized (for the reasons discussed above); thus the lead content of these alloys is always below 0.0005%.

| **Designation** | | | **Chemical composition % by mass max unless stated** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UNS No | SAE No | Common Name | C | Si | Mn | P | S | Cr | Mo | Ni | Others |
| S31803 | | 2205 | 0.030 | 1.0 | 2.0 | 0.035 | 0.020 | 21.0/23.0 | 2.5/3.5 | 4.5/6.5 | N 0.08/0.20 |
| S32001 | | Nitronic 19 D | 0.030 | 1.0 | 4.0/6.0 | 0.040 | 0.030 | 19.5/21.5 | 0.60 | 1.0/3.0 | N 0.05/0.17 Cu 1.0 |
| S32003 | | ATI 2003 | 0.030 | 1.0 | 2.0 | 0.030 | 0.020 | 19.5/22.5 | 1.50/2.0 | 3.0/4.0 | N 0.14/0.20 |
| S32101 | | LDX 2101 | 0.040 | 1.0 | 4.0/6.0 | 0.040 | 0.030 | 21.0/22.0 | 0.1/0,8 | 1.25/1.7 | N 0.20/0.25 Cu 0.10/0.8 |
| | | ATI 2102 | | | | | | | | | |
| S32202 | | 2202 | | | | | | | | | |
| S32205 | | 2205 | 0.030 | 1.0 | 2.0 | 0.035 | 0.020 | 22.0/23.0 | 3.0/3.5 | 4.5/6.5 | N 0.14/0.20 |
| S32304 | | 2304 | 0.030 | 1.0 | 2.5 | 0.040 | 0.030 | 21.5/24.5 | 0.05/0.6 | 3/5.5 | N 0.05/0.20 Cu 0,05/0.60 |
| S32750 | | 2705 | 0.030 | 0.8 | 1.2 | 0.035 | 0.02 | 24.0/26.0 | 3.0/5.0 | 6.0/8.0 | N 0.24/0.32 Cu 0.5 |

## V. CONCLUSION

For the foregoing reasons, SSINA requests the CPSC to issue a preliminary determination that 200, 300, 400 and Duplex series stainless steels will not contain lead at levels above the CPSIA limits. If you have any questions or would like additional information, please do not hesitate to contact Joe Green at (202) 342-8849 or JGreen@KelleyDrye.com.

Sincerely,



Joseph J. Green
Wayne D'Angelo
Counsel to the Specialty Steel Industry of North America

Attachments

PRAXAIR

# Improving Quality and Productivity with AOD

Invented in 1954, Praxair's proprietary argon oxygen decarburization (AOD) process was first used exclusively for stainless steel production; now it is used to produce military grades, tool steels, carbon and low-alloy steels, nickel grades, cobalt grades, and superalloys.

Today, well over 75 percent of the world's stainless is made using the Praxair AOD process, and this number continues to increase.

## The Process

AOD is part of a duplex process in which scrap or virgin raw materials are melted in an electric arc furnace (EAF) or induction furnace and subsequently decarburized and refined in a special AOD vessel. Controlled injection of oxygen mixed with argon or nitrogen decarburizes the molten metal with a minimum of unwanted metallic oxidation.

Deoxidation, desulfurization (and, in the case of low-alloy steels, dephosphorization), and recovery of desirable metals from the slag are carried out in the AOD vessel. Degassing, homogenization, and inclusion flotation proceed during various stages of the process to produce a clean and uniform product.

Praxair's AOD process uses a trunnion-mounted, open-mouthed vessel lined with refractory brick. Oxygen and an inert gas (argon or nitrogen) are injected through underbath tuyeres located in the vessel's side wall and a top lance. Heat generation results from controlled oxidation of the bath components, and no external heat source is used or required.

The molten metal is initially blown with a high ratio of oxygen-to-inert gas. As the carbon content of the bath decreases, the oxygen-to-inert gas ratio is lowered. Dilution of the oxygen by the inert gas lowers the partial pressure of carbon monoxide in the bubbles within the bath, which favors carbon removal. As a result, carbon removal increases while metallic oxidation diminishes.

All of the tuyere-injected oxygen reacts with the bath; none leaves the vessel unreacted. By monitoring and recording the oxygen consumption during the blow, very close control of endpoint carbon is achieved.

Because the bulk of oxygen and inert gases in the later stages of decarb and finishing are introduced below the bath surface and at high velocity, excellent bath mixing and intimate slag-metal contact occur.

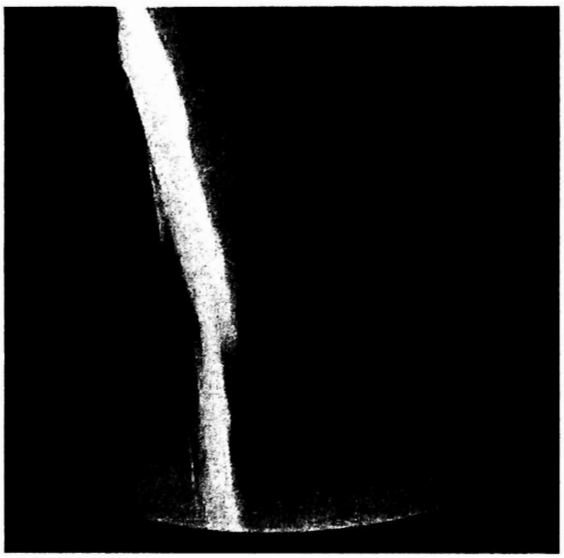
- **High-metallic yields**
- **Considerably lower material cost due to the ability to use less expensive high-carbon ferro alloys, sulfur-bearing scrap and alloys, low-quality scrap, and returns as raw materials**
- **Pinpoint process control accuracy in achieving desired aim chemistries, with precise control of carbon to 0.01 percent and lower**
- **Rapid desulfurization to less than 0.001 percent**
- **Lead removal to less than 0.001 percent**
- **Cleaner metal, with residual oxygen, nitrogen, and hydrogen comparable to those achieved in vacuum degassing**
- **Increased productivity capacity from a relatively small capital investment**

As a result, the rates of all chemical processes that take place within the vessel are greatly improved. These include:

- Desulfurization to very low levels (under 0.001 percent), generally in less than five minutes.
- Increased carbon removal efficiency, allowing lower carbon specifications without excessive metallic oxidation.
- Efficient slag reduction, with stoichiometric amounts of silicon or aluminum to recover 98 to 100 percent of most metallics.

A major benefit of the process is the degassing effect of the combination of the inert gas introduced through the tuyeres and the carbon monoxide generated during decarburization. Low amounts of residual oxygen, nitrogen, and hydrogen are achieved without additional processing or expensive degassing equipment.

Praxair's AOD system includes one or more unlined vessels, trunnion ring and drive system, top lance, sampling platform, and a complete auto/manual gas control system. Systems can be sized to meet nearly every need.



Currently, about 130 AOD vessels are in operation worldwide, with heat sizes ranging from one to 160 metric tons (one to 175 tons).

In addition to the equipment supplied as part of the AOD system, the foundry or mill needs a crane of proper capacity to lift an empty, fully-lined vessel, a fume control system, and facilities for supplying gas and gas and power requirements

PRAXAIR
*Making our planet more productive.*



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# Whiting Equipment Canada Inc.
## 70/85 ton AOD Converter System

On August 9,1998, a 70/85 nominal ton AOD converter system poured its first heat at Atlas Specialty Steels, Wetland, Ontario, Canada. The system is based upon Praxair's Argon Oxygen Decarburization (AOD) process for the production of high quality stainless steel, superior castings, low alloy or specialty steels.

This turnkey project carried out by Whiting Equipment Canada Inc. proves the high degree of flexibility of the process and its success in meeting the high quality standards set out by Atlas Specialty Steels.

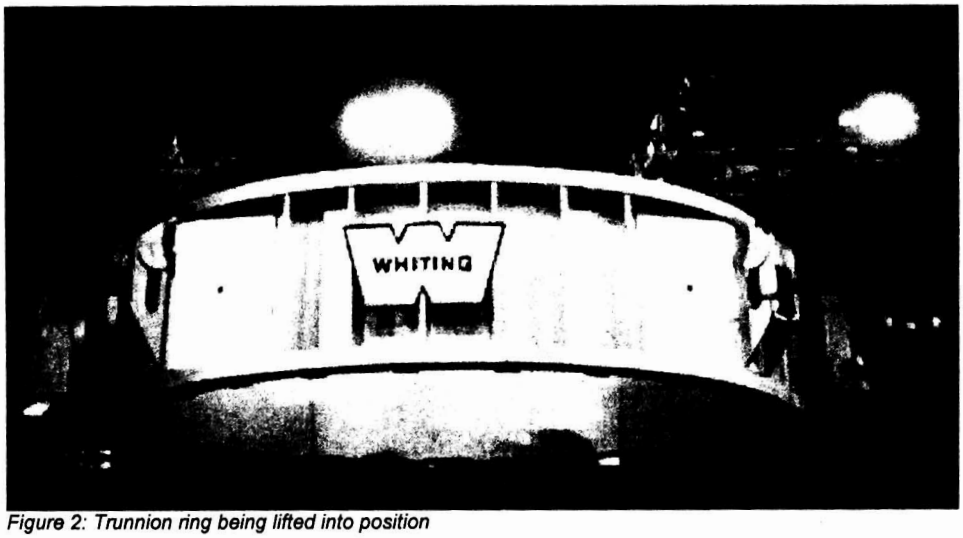


*Figure 2: Trunnion ring being lifted into position*

## Technical Specifications of the Installation

### Converter

**Number of Vessels Supplied:**
• three (3) – *Figure 1*

**Nominal Capacity:**
• 70 tons

**Capacity Range:**
• 55 tons to 85 tons

**Inner Diameter:**
• 14'-0"

**Vessel Height (including cover):**
• 20'-4 3/8"

**Vessel Weight Excluding Lining:**
• 75,900 lbs.

**Tilting Drive:**
• two (2) 52.5 hp dc mill motors,
• two (2) nitrogen driven backup motors

**Rational Speed:**
• zero to 1 rpm variable

**Number of Tuyeres:**
• five (5)

**Trunnion Bearing Center Distance:**
• 19'-7 1/2" – *Figure 2*

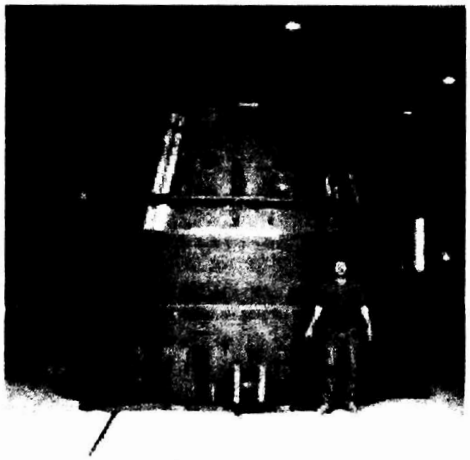

*Figure 1: AOD vessel bottom section under construction in Whiting's Welland fabrication shop*

### Motorized Operator's Platform

**Function:**
• a chemistry, temperature samples and preheating platform

**Drive Systems:**
• 5 hp dc

**Dimensions (approximate):**
• 27'-0" high x 16'-0" long

### Oxygen Lance

**Function:**
• rapid decarburization

**Cooling:**
• water

**Movement:**
• horizontal 21'-0"; vertical 9'-0"

**Hoist Drive:**
• 20 hp

### Motorized Fume Hood

**Function:**
• capture process fumes

**Cooling:**
• refractory lined, air cooled

**Drive:**
• 10 hp

**Movement:**
• horizontal 21'-0"

**Capture Mode:**
• an accelerator stack projected to the canopy roof

### Preheaters

**Function:**
• preheat AOD vessel and ladle linings

**Quantity:**
• three (3)

**Capacity:**
• one (1) vertical ladle preheater, 7 x $10^6$ Btu/h,
• one (1) horizontal AOD operating vessel preheater, 10 x $10^6$ Btu/h,
• one (1) vertical AOD standby vessel preheater, 10 x $10^6$ Btu/h.

### Valve Rack and Gas Control System

**Function:**
• perform process gas control

**Supplier:**
• Praxair "IRS" (Intelligent Refining System)

### Transfer Cars

**Function:**
• move process slag pots and ladles

**Quantity:**
• two (2)

**Capacity:**
• ladle transfer car – 160 tons, 10 hp dc, 35 ft/min
• slag pot car – 50 tons, 5 hp dc, 30 ft/min

### Immersion Sampler

**Function:**
• remote robotic temp./chem. samples at ladle post treatment station

**Quantity:**
• one (1)

*Figure 3: Overall Installation*

## Alloy Additions System

**Function:**
- delivery of accurately weight alloy additions to the AD vessel while operating, using full automation

**Bin Quantity:**
- twenty-two (22), one (1) operating floor hand additions weight hopper

**Overall Dimensions (approximate):**
- 39'-0" high x 26'-9" wide x 80'-0" long

## Miscellaneous Auxiliary Equipment

- Ladle post treatment station
- Melt shop building expansion
- 5 ton jib service crane
- Installation of a 50 ton service crane
- Cooling water system
- AOD vessel bricking platforms
- Vessel lifting beams
- Training and commissioning programs

## System Description

The AOD plant had to be integrated into the existing melt shop, downstream of two (2) operating electric arc furnaces, a VAD all originally supplied by Whiting and a VOD. Pits were not allowed. All equipment had to be built on a mezzanine basis, 24 feet above the plant operating floor. This accounts for the unusual elevation of the tapper's platform necessary to reach the vessel mouth area and the high piers needed to support the vessel.

The tilt drive system is - helical gear, dual-input, single-output, double-quadruple reduction parallel shaft gear drive, connected through a gear coupling and driven by two (2) 52.5 hp dc mill motors. In addition, two (2) nitrogen motors were installed as a backup in case of power failure.

*Figure 4: AOD blowing a heat*

Provision of three (3) AOD vessels ensures that a completely bricked backup vessel will always be available while the AOD is operating and a vessel is being relined. The design of the vessel locking arrangement to the trunnion ring allows one hour or less exchange time. The vessel has a removable top cone section to ease relining. The fume hood (which has the water cooled lance installed through it) is designed to move horizontally out of the way, allowing the melt shop crane to lift the vessel vertically from the trunnion for relining and relined vessel replacement.

All alloys, fluxes, cooling scrap, etc., are automatically pre-calculated, weighed on weigh belt feeders and fed from the bin storage system into the mouth of the converter vessel by the automated alloy additions system. The charge is transferred via a retractable feed chute. The alloy additions system is complete with its own integrated dust control system to reduce dust generation through loading in the melt shop to a minimum.

The process gases are fed to the AOD heat through the Praxair proprietary "Intelligent Refining System" (IRS) via the five (5) vessel tuyeres and top blowing oxygen lance, all gas compositions are precalculated through custom designed programs to suit final product requirements.

The water-cooled oxygen top lance moves vertically into and out of the vessel's mouth by a hoisting mechanism situated above the fume hood. The same mechanism that moves the fume hood also moves the lance horizontally.

A new 160-ton capacity Whiting ladle transfer car was supplied to move the tapping ladle between the post treatment station and the AOD vessel thus freeing up the existing melt shop cranes for other duties.

A new 50-ton capacity Whiting slag pot transfer car was supplied to receive and remove the slag generated by the process without the use of the existing melts shop cranes.

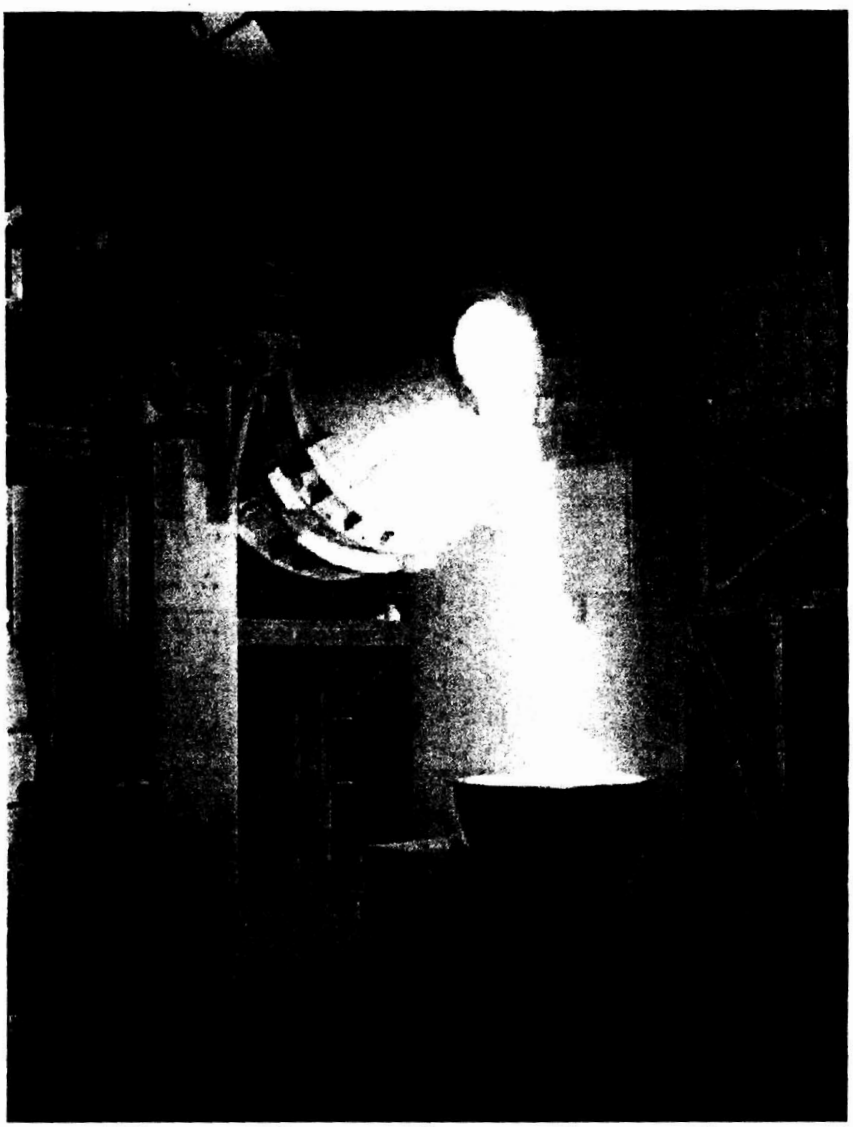

*Figure 5: AOD tapping slag*

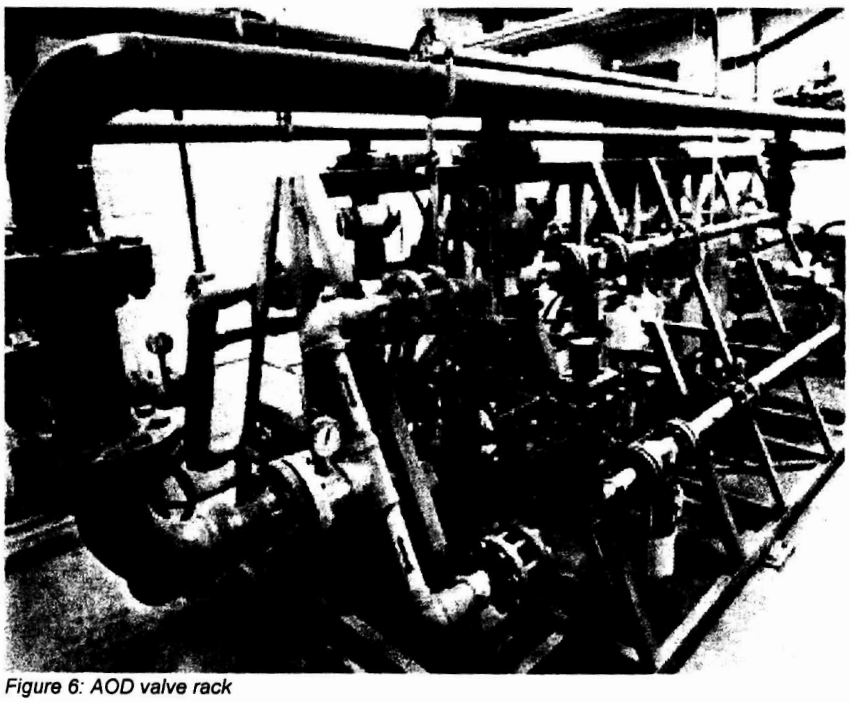

*Figure 6: AOD valve rack*

Three (3) pre-heaters were installed to make certain that either a ladle or AOD vessel is always ready for use. The vertical ladle pre-heater keeps the receiving ladle lining at the temperature required to receive the AOD tap. The vertical AOD vessel pre-heater ensures the standby AOD vessel lining is ready for immediate operation in the vessel trunnion ring. The horizontal AOD vessel pre-heater keeps the vessel lining at operating temperature during periods of downtime while the vessel is in the trunnion ring.

A new control room was constructed on the melt shop-charging floor to house the control equipment for the total AOD operation and all its ancillaries. A single control console using the latest in "touch screen" industrial software and computer hardware was installed. This requires only one (1) operator to remotely monitor and control the system.

The process control is managed by an Allen-Bradley PLC-5 that interfaces with the customer's DEC mainframe and Praxair Moore APACS hardware. The man machine interface is a large operator's console complete with two (2) monitors and a printer.

This system uses touch screen technology in the graphic Windows environment, making the system exceptionally easy to use and understand. A remote operator's station was installed beside the pouring area of the AOD vessel, providing local control of the AOD and its auxiliary equipment when required.

A post treatment station was installed next to the AOD pouring area to enable supplementary wire feed alloy additions and stirring of the heat before casting.

Molten metal is poured into the AOD vessel via the melt shop crane. The ladle transfer car or the melt shop cranes are used to receive the molten metal from the AOD vessel for final casting.


Summary

This project takes advantage of the many benefits the AOD process can provide to a steelmaker, they include:

- High metallic yields
- Flexibility in low cost raw materials selection
- Pinpoint accuracy in achieving desired aim chemistries
- Precise control of carbon to 0.01% and lower
- Rapid desulfurization to less than 0.001%
- Lead removal to less than 0.001%
- Cleaner metal, with low residual oxygen, nitrogen and hydrogen
- Increased production capacity


The Whiting AOD vessel design provides an all-welded, stress-relieved treatment vessel with heavy steel horizontal reinforcing ribs and gusset plates to retain the vessel shape after many heats. The locking arrangement provides a quick changeover and allows for expansion between the vessel and trunnion ring. Whiting has previously supplied AOD Equipment to hold different sized vessels in the same trunnion ring thereby achieving heats of various sizes at an optimum cost.

Whiting designed and manufactured more than 70% of North America's operating AODs.

Contact a Whiting Sales Engineer to find out more about our AOD equipment.

*Figure 7: Control console using "touch screen" technology*

## Whiting Equipment Canada Inc.

WHITING

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## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| **2008** | | | |
| 981108 | 684080 | 1563 | 1.4 |
| 981109 | 684100 | 1942 | 0.9 |
| 981111 | 684120 | 6586 | 0.5 |
| 981111 | 862598 | 1818 | 6.3 |
| 981111 | 862758 | 1818 | 8.1 |
| 981112 | 884127 | 1818 | 1.6 |
| 981112 | 684140 | 2325 | 0.2 |
| 981113 | 784160 | 1528 | 0.2 |
| 981114 | 684180 | 3588 | 0.1 |
| 981116 | 784200 | 1521 | 1.1 |
| 981117 | 784220 | 1528 | 0.2 |
| 981122 | 684260 | 134502 | 0.2 |
| 981123 | 884280 | 2395 | 0.3 |
| 981124 | 684300 | 2546 | <0,1 |
| 981125 | 784320 | 1396 | <0,1 |
| 981201 | 884380 | 3594 | <0,1 |
| 981202 | 684400 | 1528 | 0.3 |
| 981203 | 784420 | 1525 | 0.1 |
| 981205 | 784440 | 127907 | 0.6 |
| 981206 | 784460 | 2546 | 0.3 |
| 981207 | 684480 | 134502 | 0.2 |
| 981209 | 784500 | 1563 | 0.1 |
| 981210 | 684520 | 1563 | <0,1 |
| 981212 | 684540 | 6586 | 0.7 |
| 981215 | 784580 | 2325 | 0.4 |
| 981216 | 784600 | 1528 | 0.1 |
| 981217 | 684620 | 134502 | 0.2 |
| 981218 | 684640 | 1563 | 0.1 |
| 981220 | 884660 | 3328 | 0.4 |
| 981221 | 684680 | 1528 | 0.2 |
| 981222 | 884700 | 1561 | <0,1 |
| 981223 | 784720 | 6586 | 1 |
| 981227 | 684740 | 1396 | 0.3 |
| 981228 | 784760 | 1563 | 0.2 |
| 981229 | 884780 | 1391 | 0.3 |

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| **2004** | | | |
| 040102 | 840020 | 1563 | 0.46 |
| 040105 | 840060 | 658919 | 0.98 |
| 040106 | 840080 | 1358 | 0.6 |
| 040107 | 840100 | 658919 | 1.08 |
| 040107 | 840105 | 1818 | 1.71 |
| 040109 | 840120 | 127933 | 0.42 |
| 040110 | 840140 | 1358 | 0.38 |
| 040111 | 840160 | 1358 | 0.36 |
| 040112 | 840180 | 658919 | 0.54 |
| 040113 | 840200 | 1358 | 0.3 |
| 040114 | 840220 | 1358 | 0.44 |
| 040115 | 840226 | 6992 | 0.59 |
| 040115 | 840227 | 6992 | 0.61 |
| 040116 | 840240 | 1358 | 0.26 |
| 040117 | 840260 | 2546 | 0.33 |
| 040118 | 840280 | 2323 | <0,1 |
| 040119 | 840300 | 1358 | 0.16 |
| 040120 | 840314 | 1818 | 0.39 |
| 040120 | 840320 | 1358 | 0.26 |
| 040121 | 840340 | 2323 | 0.13 |
| 040123 | 840360 | 1358 | 0.23 |
| 040127 | 840420 | 1961 | 0.38 |
| 040128 | 840440 | 2323 | 0.26 |
| 040129 | 840460 | 3393 | 0.17 |
| 040130 | 840480 | 2395 | 0.36 |
| 040202 | 840520 | 1552 | 0.17 |
| 040203 | 840540 | 2323 | 0.23 |
| 040204 | 840560 | 194201 | 0.22 |
| 040207 | 840580 | 1358 | 0.24 |
| 040209 | 840620 | 1563 | <0.1 |
| 040211 | 840640 | 194201 | 0.67 |
| 040212 | 840660 | 1358 | 0.19 |
| 040213 | 840680 | 1358 | 0.18 |
| 040214 | 840700 | 1358 | 0.14 |
| 040215 | 840720 | 134502 | 0.23 |
| 040217 | 840740 | 1357 | 0.22 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| **1999** | | | |
| 990104 | 790040 | 2325 | 0.6 |
| 990105 | 690060 | 1528 | 0.4 |
| 990107 | 790080 | 3588 | 0.5 |
| 990110 | 690100 | 2342 | 0.4 |
| 990112 | 890120 | 1521 | 0.3 |
| 990113 | 790140 | 1528 | 0.4 |
| 990115 | 890160 | 1561 | 0.3 |
| 990116 | 790180 | 1563 | 0.3 |
| 990117 | 890200 | 2325 | 0.6 |
| 990119 | 890220 | 1528 | 0.3 |
| 990120 | 790240 | 1528 | 0.2 |
| 990121 | 790260 | 134502 | 0.6 |
| 990125 | 890300 | 1913 | <0,1 |
| 990126 | 690320 | 1396 | 0.2 |
| 990129 | 790360 | 1358 | 0.3 |
| 990130 | 790380 | 1511 | 0.3 |
| 990201 | 890400 | 1561 | 0.1 |
| 990202 | 690420 | 1521 | 0.4 |
| 990203 | 790440 | 2325 | 0.5 |
| 990205 | 790460 | 1358 | 0.3 |
| 990210 | 890520 | 1921 | 0.3 |
| 990212 | 690540 | 1325 | 0.5 |
| 990214 | 890560 | 1396 | 0.4 |
| 990215 | 690580 | 2325 | 0.3 |
| 990216 | 790600 | 1513 | 0.4 |
| 990218 | 790620 | 2546 | 0.6 |
| 990220 | 790640 | 1358 | 0.6 |
| 990221 | 790660 | 1537 | 0.5 |
| 990224 | 790700 | 2325 | 0.4 |
| 990226 | 790720 | 2325 | 0.3 |
| 990301 | 790780 | 1513 | 0.1 |
| 990303 | 790800 | 1552 | 0.2 |
| 990304 | 790820 | 2325 | 0.1 |
| 990306 | 790840 | 2325 | 0.9 |
| 990307 | 790860 | 2342 | 0.6 |
| 990307 | 790880 | 1537 | 0.5 |
| 040218 | 840760 | 658919 | 0.13 |
| 040219 | 840780 | 1358 | 0.2 |
| 040221 | 840800 | 2323 | 0.21 |
| 040222 | 840820 | 6216 | 0.38 |
| 040223 | 840840 | 1391 | <0.1 |
| 040224 | 840860 | 2546 | 0.13 |
| 040225 | 840880 | 1358 | <0,1 |
| 040226 | 840900 | 1961 | 0.13 |
| 040227 | 840920 | 1358 | 0.27 |
| 040228 | 840940 | 1358 | <0,1 |
| 040303 | 841000 | 658919 | 1.46 |
| 040304 | 841020 | 7224 | 0.57 |
| 040305 | 841040 | 2323 | 0.13 |
| 040306 | 841060 | 1358 | 0.34 |
| 040308 | 841080 | 3383 | 0.24 |
| 040309 | 841100 | 1552 | 0.18 |
| 040310 | 841120 | 2323 | <0,1 |
| 040311 | 841140 | 1335 | <0,1 |
| 040312 | 841160 | 1358 | 0.25 |
| 040313 | 841180 | 1358 | 0.21 |
| 040314 | 841200 | 1358 | <0,1 |
| 040316 | 841220 | 1961 | 1.92 |
| 040319 | 841260 | 2553 | 0.26 |
| 040320 | 841280 | 1358 | 0.36 |
| 040321 | 841300 | 6216 | 0.21 |
| 040322 | 841320 | 1563 | 0.11 |
| 040324 | 841360 | 658919 | 0.26 |
| 040325 | 841380 | 2323 | 0.14 |
| 040326 | 841400 | 1358 | 0.12 |
| 040327 | 841420 | 1358 | 0.16 |
| 040328 | 841440 | 231920 | 0.18 |
| 040329 | 841460 | 1563 | 0.21 |
| 040402 | 841520 | 1358 | 0.16 |
| 040405 | 841540 | 2323 | <0,1 |
| 040409 | 841600 | 5412 | 0.33 |
| 040410 | 841620 | 1358 | <0,1 |
| 040411 | 841640 | 1335 | <0,1 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm | DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|---|---|---|---|
| 990310 | 790900 | 6586 | 0.8 | 040413 | 841660 | 2342 | 0.26 |
| 990312 | 890920 | 7224 | 0.4 | 040417 | 841700 | 338908 | 0.17 |
| 990313 | 690940 | 1537 | 0.4 | 040419 | 841740 | 1358 | 0.22 |
| 990316 | 690960 | 1563 | 0.4 | 040422 | 841780 | 1358 | <0,1 |
| 990317 | 690980 | 1563 | 0.3 | 040423 | 841800 | 1358 | 0.16 |
| 990317 | 890987 | 181902 | 3.4 | 040425 | 841820 | 2323 | <0,1 |
| 990318 | 891000 | 1395 | 0.1 | 040427 | 841840 | 1358 | 0.1 |
| 990321 | 791040 | 1325 | 0.3 | 040428 | 841860 | 2323 | <0,1 |
| 990322 | 891060 | 2342 | 0.2 | 040429 | 841880 | 1358 | 0.11 |
| 990323 | 891080 | 3443 | 0.2 | 040501 | 841900 | 2323 | 0.17 |
| 990325 | 791100 | 2325 | 0.4 | 040503 | 841940 | 3417 | 0.3 |
| 990326 | 891120 | 1358 | 0.5 | 040504 | 841960 | 1358 | <0,1 |
| 990328 | 791140 | 1325 | 0.1 | 040506 | 841980 | 2323 | 0.32 |
| 990330 | 791160 | 2325 | 0.1 | 040508 | 842020 | 1563 | 0.12 |
| 990401 | 891180 | 2546 | 0.1 | 040512 | 842040 | 231921 | 0.2 |
| 990402 | 791200 | 1325 | 0.6 | 040513 | 842060 | 3393 | 0.84 |
| 990404 | 791220 | 2325 | 0.2 | 040514 | 842080 | 1358 | 0.22 |
| 990406 | 891240 | 1364 | 0.5 | 040515 | 842100 | 135801 | <0.1 |
| 990410 | 891280 | 6586 | 0.7 | 040517 | 842120 | 1911 | 0.56 |
| 990410 | 891286 | 1818 | 5.5 | 040518 | 842140 | 1563 | <0,1 |
| 990411 | 791300 | 2325 | 0.3 | 040520 | 842160 | 127933 | 0.21 |
| 990412 | 691320 | 1358 | <0,1 | 040521 | 842180 | 1358 | 0.27 |
| 990416 | 891360 | 3382 | 0.1 | 040522 | 842200 | 2323 | 0.16 |
| 990418 | 791380 | 6586 | 0.7 | 040523 | 842220 | 194201 | 0.55 |
| 990418 | 891385 | 1818 | 3.7 | 040525 | 842240 | 134502 | 0.18 |
| 990420 | 791400 | 1358 | 0.2 | 040526 | 842260 | 658919 | 0.31 |
| 990421 | 891420 | 2325 | 0.3 | 040527 | 842280 | 1358 | <0,1 |
| 990423 | 791440 | 2342 | 0.2 | 040528 | 842300 | 1335 | <0,1 |
| 990425 | 791460 | 6586 | 0.6 | 040530 | 842320 | 2546 | 0.14 |
| 990426 | 691480 | 2325 | 0.2 | 040530 | 842340 | 1563 | <0,1 |
| 990427 | 891500 | 7224 | 0.3 | 040601 | 842360 | 5855 | 0.51 |
| 990430 | 891520 | 3382 | 0.3 | 040602 | 842380 | 1358 | 0.17 |
| 990503 | 891540 | 135901 | 0.3 | 040603 | 842400 | 1358 | 0.13 |
| 990504 | 791560 | 2325 | 0.4 | 040605 | 842420 | 2323 | 0.185 |
| 990505 | 691580 | 1358 | 0.1 | 040606 | 842440 | 127933 | 0.18 |
| 990506 | 791600 | 1358 | 0.6 | 040607 | 842460 | 1358 | 0.1 |
| 990508 | 691620 | 2542 | 0.5 | 040609 | 842480 | 194201 | 0.26 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 990511 | 791660 | 2325 | 0.5 |
| 990512 | 891680 | 1563 | 0.2 |
| 990514 | 891700 | 2543 | 0.5 |
| 990517 | 691740 | 1358 | 0.2 |
| 990520 | 691760 | 134502 | 0.4 |
| 990522 | 691780 | 6586 | 0.6 |
| 990523 | 791800 | 3525 | 0.4 |
| 990525 | 791820 | 1358 | 0.6 |
| 990527 | 691840 | 2342 | 0.4 |
| 990529 | 891860 | 5855 | 2.7 |
| 990530 | 691880 | 2325 | 0.5 |
| 990601 | 891900 | 1358 | 0.1 |
| 990604 | 791940 | 1537 | <0,0 |
| 990605 | 691960 | 151904 | 0.1 |
| 990608 | 792000 | 1358 | 0.3 |
| 990609 | 692020 | 2325 | 0.2 |
| 990610 | 792040 | 2325 | 0.2 |
| 990612 | 692060 | 1395 | <0,2 |
| 990614 | 792100 | 1358 | <0,2 |
| 990615 | 792120 | 1537 | 0.2 |
| 990617 | 692140 | 2546 | 0.3 |
| 990620 | 892160 | 2546 | 0.2 |
| 990622 | 692180 | 1358 | <0,2 |
| 990623 | 892200 | 1561 | <0,2 |
| 990625 | 892220 | 1358 | 0.5 |
| 990627 | 792240 | 1396 | 0.2 |
| 990629 | 892260 | 6211 | 0.8 |
| 990630 | 692280 | 5973 | 1.3 |
| 990702 | 792300 | 5855 | 1.5 |
| 990704 | 792320 | 2325 | 0.2 |
| 990803 | 892340 | 1358 | 0.3 |
| 990805 | 892360 | 1961 | 1.0 |
| 990807 | 692380 | 6586 | 1.3 |
| 990808 | 792400 | 1358 | <0,2 |
| 990809 | 792420 | 134502 | <0,2 |
| 990811 | 892440 | 1563 | <0,2 |
| 990812 | 892460 | 194201 | 0.5 |
| 040610 | 842500 | 1358 | <0,1 |
| 040612 | 842520 | 1358 | <0,1 |
| 040613 | 842540 | 1961 | 0.22 |
| 040615 | 842580 | 3393 | 0.39 |
| 040617 | 842600 | 2395 | 0.35 |
| 040618 | 842620 | 2323 | 0.22 |
| 040620 | 842640 | 2323 | 0.17 |
| 040621 | 842660 | 1942 | 0.76 |
| 040623 | 842680 | 1357 | 0.13 |
| 040625 | 842700 | 2323 | 0.24 |
| 040626 | 842720 | 194201 | 0.39 |
| 040629 | 842760 | 3383 | 0.71 |
| 040701 | 842780 | 1552 | 0.19 |
| 040702 | 842800 | 7224 | 0.11 |
| 040703 | 842820 | 1911 | 0.19 |
| 040706 | 842860 | 2553 | 0.27 |
| 040707 | 842880 | 1358 | 0.35 |
| 040708 | 842900 | 1335 | 0.22 |
| 040727 | 842920 | 1358 | 0.26 |
| 040729 | 842940 | 2546 | 0.3 |
| 040801 | 842980 | 231921 | 0.38 |
| 040803 | 843000 | 1563 | 0.26 |
| 040806 | 843040 | 2323 | 0.3 |
| 040809 | 843080 | 1358 | 0.38 |
| 040810 | 843100 | 1563 | <0,1 |
| 040811 | 843120 | 231920 | 0.14 |
| 040812 | 843140 | 1358 | <0,1 |
| 040814 | 843160 | 2323 | 0.15 |
| 040815 | 843180 | 1358 | 0.12 |
| 040816 | 843200 | 1358 | 0.1 |
| 040817 | 843220 | 3393 | 0.33 |
| 040819 | 843240 | 658919 | 0.19 |
| 040820 | 843260 | 2323 | 1.36 |
| 040821 | 843280 | 2323 | 0.27 |
| 040822 | 843300 | 6216 | |
| 040824 | 843320 | 1552 | <0,1 |
| 040825 | 843340 | 2323 | 0.3 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 990814 | 892480 | 7224 | 0.3 |
| 990816 | 792500 | 1358 | 0.2 |
| 990820 | 692540 | 1561 | 0.3 |
| 990822 | 792560 | 6586 | 0.8 |
| 990823 | 792580 | 2325 | 0.2 |
| 990825 | 692600 | 1382 | 0.2 |
| 990826 | 692620 | 1563 | 0.2 |
| 990828 | 792640 | 2325 | 0.3 |
| 990828 | 792660 | 1358 | 0.2 |
| 990830 | 792680 | 1358 | 0.2 |
| 990831 | 792700 | 1563 | 0.3 |
| 990903 | 892720 | 1588 | 0.2 |
| 990904 | 792740 | 2325 | 0.3 |
| 990606 | 892760 | 1932 | 0.5 |
| 990907 | 792780 | 1358 | <0,2 |
| 990911 | 792840 | 1358 | <0,2 |
| 990913 | 892860 | 194201 | 0.3 |
| 990914 | 792880 | 3382 | 0.5 |
| 990915 | 892900 | 3382 | <0,2 |
| 990918 | 892920 | 1556 | 0.1 |
| 990919 | 692940 | 2325 | 0.2 |
| 990920 | 892960 | 1358 | <0,1 |
| 990922 | 892980 | 1358 | 0.3 |
| 990924 | 793000 | 2342 | 0.2 |
| 990925 | 893020 | 1911 | <0,1 |
| 990928 | 693060 | 2325 | <0,1 |
| 990929 | 793080 | 1358 | 0.3 |
| 991001 | 793100 | 1563 | <0,1 |
| 991002 | 893120 | 2351 | <0,1 |
| 991003 | 793140 | 1325 | <0,1 |
| 991005 | 693160 | 2325 | 0.1 |
| 991006 | 693180 | 1325 | 0.36 |
| 991007 | 693200 | 1563 | 0.13 |
| 991009 | 893220 | 1961 | 0.2 |
| 991011 | 793240 | 2325 | 0.46 |
| 991012 | 793260 | 6586 | 0.44 |
| 991013 | 693280 | 2325 | <0,1 |

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 040826 | 843360 | 6216 | 0.21 |
| 040827 | 843380 | 1358 | 0.13 |
| 040830 | 843420 | 134502 | <0,1 |
| 040901 | 843440 | 6112 | <0,1 |
| 040904 | 843460 | 2323 | 0.15 |
| 040905 | 843480 | 1358 | <0,1 |
| 040909 | 843520 | 1942 | 0.14 |
| 040910 | 843540 | 6112 | 0.45 |
| 040912 | 843580 | 1358 | 0.16 |
| 040914 | 843600 | 1357 | 0.31 |
| 040916 | 843620 | 135801 | <0,2 |
| 040918 | 843640 | 2395 | 0.28 |
| 040919 | 843660 | 1358 | <0,1 |
| 040921 | 843680 | 658919 | 0.5 |
| 040922 | 843700 | 6211 | 0.32 |
| 040924 | 843720 | 3393 | 0.3 |
| 040924 | 843740 | 1358 | <0,1 |
| 040926 | 843760 | 1563 | <0,1 |
| 040927 | 843780 | 1555 | 0.16 |
| 040928 | 843800 | 6112 | 0.47 |
| 040929 | 843820 | 1358 | 0.11 |
| 041001 | 843840 | 1358 | 0.14 |
| 041002 | 843860 | 2323 | <0,1 |
| 041004 | 843880 | 1278 | <0,1 |
| 041005 | 843900 | 1961 | 0.22 |
| 041006 | 843920 | 1358 | <0,1 |
| 041008 | 843940 | 3393 | 0.38 |
| 041009 | 843960 | 1358 | <0,1 |
| 041010 | 843975 | 181902 | 0.23 |
| 041010 | 843980 | 2553 | 0.26 |
| 041011 | 844000 | 1942 | 0.47 |
| 041012 | 844020 | 1358 | <0.1 |
| 041014 | 844040 | 127933 | 0.25 |
| 041015 | 844060 | 1358 | <0.1 |
| 041017 | 844080 | 1358 | 0.11 |
| 041018 | 844100 | 658919 | 0.13 |
| 041019 | 844120 | 2323 | 0.30 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 991015 | 793300 | 1563 | <0,1 |
| 991017 | 893320 | 2395 | 0.32 |
| 991018 | 793340 | 1358 | 0.31 |
| 991020 | 793360 | 6586 | 0.73 |
| 991022 | 793380 | 1358 | 0.93 |
| 991023 | 693400 | 1563 | 0.27 |
| 991025 | 893420 | 1278 | <0,1 |
| 991026 | 793440 | 334204 | 0.63 |
| 991027 | 693460 | 1358 | 0.17 |
| 991029 | 793480 | 2342 | 0.3 |
| 991031 | 893500 | 1932 | 0.37 |
| 991104 | 693560 | 1396 | <0,1 |
| 991105 | 693580 | 597905 | 1.15 |
| 991106 | 693600 | 1563 | 0.29 |
| 991108 | 793620 | 3525 | <0,1 |
| 991109 | 793640 | 1358 | <0,1 |
| 991112 | 793660 | 1358 | 0.31 |
| 991114 | 793700 | 2325 | 0.27 |
| 991116 | 893720 | 1961 | 0.31 |
| 991119 | 893760 | 1563 | 0.21 |
| 991120 | 793780 | 1358 | 0.13 |
| 991122 | 793800 | 1358 | 0.10 |
| 991123 | 893820 | 5973 | 1.05 |
| 991124 | 793840 | 1358 | 0.22 |
| 991126 | 793860 | 1391 | 0.27 |
| 991128 | 793880 | 134502 | 0.22 |
| 991129 | 893900 | 151904 | 0.52 |
| 991201 | 893920 | 5855 | 0.73 |
| 991202 | 793940 | 2325 | 0.08 |
| 991203 | 793960 | 3588 | 0.39 |
| 991204 | 693980 | 597905 | 1.57 |
| 991206 | 794000 | 6586 | 1.08 |
| 991207 | 694020 | 1358 | 0.11 |
| 991208 | 694040 | 2342 | 0.35 |
| 991209 | 794060 | 2325 | 0.89 |
| 991210 | 794080 | 6586 | 0.58 |
| 991213 | 894120 | 2546 | 0.277 |
| 041021 | 844140 | 597905 | 0.51 |
| 041022 | 844160 | 1358 | 0.36 |
| 041023 | 844180 | 3393 | 0.66 |
| 041024 | 844200 | 1961 | 0.37 |
| 041029 | 844260 | 2323 | 0.38 |
| 041030 | 844280 | 1911 | 0.54 |
| 041031 | 844300 | 1358 | 0.24 |
| 041101 | 844320 | 1563 | <0,1 |
| 041102 | 844340 | 6112 | <0,1 |
| 041104 | 844360 | 1358 | 0.18 |
| 041105 | 844380 | 2323 | 0.1 |
| 041106 | 844400 | 1358 | <0,1 |
| 041108 | 844440 | 6216 | 0.18 |
| 041109 | 844460 | 1358 | <0,1 |
| 041114 | 844520 | 2323 | <0,1 |
| 041116 | 844540 | 1358 | <0,1 |
| 041117 | 844560 | 135901 | 1.26 |
| 041120 | 844600 | 1358 | 0.18 |
| 041121 | 844620 | 3393 | 0.27 |
| 041123 | 844660 | 1563 | 1.58 |
| 041124 | 844680 | 6216 | <0,1 |
| 041126 | 844700 | 2323 | <0,1 |
| 041127 | 844720 | 1358 | <0,1 |
| 041128 | 844740 | 1358 | <0,1 |
| 041129 | 844760 | 1358 | <0,1 |
| 041203 | 844820 | 2323 | <0,2 |
| 041205 | 844840 | 1358 | <0,1 |
| 041206 | 844860 | 1358 | <0,1 |
| 041207 | 844880 | 1358 | <0,1 |
| 041209 | 844900 | 1358 | <0,1 |
| 041210 | 844920 | 1358 | <0,1 |
| 041212 | 844940 | 1911 | <0,1 |
| 041213 | 844960 | 1358 | <0,1 |
| 041214 | 844980 | 1276 | <0,1 |
| 041215 | 845000 | 1961 | 0.82 |
| 041217 | 845020 | 1358 | <0,1 |
| 041218 | 845040 | 1358 | <0,1 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 991215 | 794140 | 1358 | 0.184 |
| 991220 | 694200 | 6586 | 0.615 |
| 991221 | 794220 | 2325 | 0.629 |
| 991222 | 694240 | 1358 | 0.291 |
| 991223 | 694260 | 1358 | 0.154 |
| 991227 | 794300 | 2325 | 0.42 |
| 991228 | 694320 | 658919 | 0.48 |
| 991230 | 694340 | 2342 | 0.096 |
| 991231 | 894360 | 1265 | 0.27 |
| **2000** | | | |
| 000103 | 700020 | 2325 | 0.32 |
| 000105 | 800040 | 1358 | 0.23 |
| 000106 | 600060 | 1391 | 0.14 |
| 000107 | 800080 | 1961 | 0.38 |
| 000108 | 600100 | 3525 | 0.02 |
| 000110 | 700120 | 1358 | 0.28 |
| 000111 | 700140 | 1358 | 0.16 |
| 000112 | 700160 | 1563 | 0.12 |
| 000113 | 700180 | 2342 | 0.1 |
| 000114 | 800200 | 1921 | 0.11 |
| 000115 | 600220 | 2325 | 0.18 |
| 000116 | 700240 | 2543 | 0.13 |
| 000117 | 700260 | 1563 | <0,1 |
| 000118 | 600280 | 2325 | 0.38 |
| 000119 | 700300 | 1358 | 0.29 |
| 000121 | 600320 | 2393 | <0,1 |
| 000123 | 600340 | 1563 | <0,1 |
| 000124 | 700360 | 1563 | 0.19 |
| 000125 | 700380 | 1563 | 0.239 |
| 000128 | 600420 | 2325 | 0.0172 |
| 000430 | 700440 | 1358 | 0.198 |
| 000431 | 600460 | 2325 | 0.038 |
| 000201 | 800480 | 1554 | 0.237 |
| 000203 | 600500 | 1358 | 0.438 |
| 000204 | 800520 | 3594 | 0.413 |
| 000207 | 700560 | 2325 | 0.383 |

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 041219 | 845060 | 3412 | <0,1 |
| 041220 | 845080 | 1391 | <0,1 |
| 041221 | 845100 | 1358 | <0,1 |
| 041225 | 845140 | 1358 | <0,1 |
| 041226 | 845160 | 2323 | 0.25 |
| 041227 | 845180 | 1358 | <0,1 |
| 041228 | 845200 | 1358 | <0,1 |
| 041230 | 845240 | 1358 | <0,1 |
| 041231 | 845260 | 1358 | <0,1 |
| **2005** | | | |
| 050102 | 450020 | 658919 | 6.3 |
| 050103 | 450040 | 3383 | <0,1 |
| 050104 | 450060 | 1358 | 0.46 |
| 050105 | 450080 | 2323 | <0,1 |
| 050107 | 450100 | 2323 | <0,1 |
| 050107 | 450111 | 181902 | <0,1 |
| 050108 | 450120 | 1921 | <0,1 |
| 050109 | 450140 | 1961 | 0.81 |
| 050111 | 450160 | 658919 | <0,1 |
| 050112 | 450180 | 1358 | <0,1 |
| 050113 | 450200 | 1358 | <0,1 |
| 050115 | 450240 | 1563 | <0,1 |
| 050117 | 450260 | 1358 | 2.78 |
| 050118 | 450280 | 1358 | 0.21 |
| 050119 | 450300 | 2323 | 0.24 |
| 050120 | 450320 | 135801 | <0,1 |
| 050121 | 450340 | 1358 | <0,1 |
| 050123 | 450360 | 127933 | <0,1 |
| 050125 | 450380 | 597905 | 0.75 |
| 050126 | 450400 | 658919 | 0.13 |
| 050128 | 450420 | 2323 | 0.19 |
| 050129 | 450440 | 1358 | 0.18 |
| 050131 | 450480 | 231920 | <0,1 |
| 050201 | 450500 | 2323 | 2.26 |
| 050203 | 450520 | 2323 | 0.29 |
| 050204 | 450540 | 6631 | 0.52 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm | DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|---|---|---|---|
| 000208 | 600580 | 134502 | 0.337 | 050207 | 450580 | 658913 | 0.17 |
| 000212 | 600620 | 658919 | 0.393 | 050208 | 450600 | 1358 | <0,1 |
| 000213 | 600640 | 2325 | <0.1 | 050210 | 450620 | 1358 | <0,1 |
| 000214 | 700660 | 1561 | 0.131 | 050211 | 450640 | 1358 | <0,1 |
| 000216 | 600680 | 6211 | 0.615 | 050212 | 450660 | 1358 | <0,1 |
| 000219 | 800720 | 2546 | 0.223 | 050218 | 450740 | 194201 | <0,1 |
| 000220 | 700740 | 1358 | 0.12 | 050220 | 450760 | 1358 | <0,1 |
| 000221 | 700760 | 1563 | <0.1 | 050221 | 450780 | 5973 | 0.73 |
| 000223 | 800780 | 194201 | 0.399 | 050222 | 450800 | 1358 | 0.1 |
| 000224 | 600800 | 2325 | <0.1 | 050223 | 450820 | 1911 | <0,1 |
| 000225 | 700820 | 2325 | 0.237 | 050225 | 450840 | 231920 | <0,1 |
| 000226 | 700840 | 1358 | <0.1 | 050227 | 450860 | 1358 | <0,1 |
| 000228 | 600860 | 2342 | 0.248 | 050228 | 450880 | 1358 | <0,1 |
| 000229 | 800880 | 1921 | 0.188 | 050304 | 450920 | 127933 | <0,1 |
| 000303 | 800920 | 1396 | 0.133 | 050305 | 450940 | 194201 | <0,1 |
| 000306 | 600960 | 334204 | 0.322 | 050307 | 450960 | 1358 | <0,1 |
| 000307 | 700980 | 1537 | <0.1 | 050308 | 450980 | 3393 | 0.25 |
| 000309 | 701020 | 1358 | <0.1 | 050309 | 451000 | 1358 | <0,1 |
| 000311 | 801040 | 2335 | <0.1 | 050311 | 451020 | 658919 | 0.19 |
| 000314 | 701100 | 1537 | 0.23 | 050312 | 451040 | 1358 | <0,1 |
| 000318 | 801140 | 1961 | 0.14 | 050314 | 451060 | 2395 | 0.26 |
| 000320 | 601160 | 1358 | <0.1 | 050315 | 451080 | 2553 | <0,1 |
| 000321 | 801180 | 1396 | 0.24 | 050317 | 451100 | 6611 | 0.24 |
| 000322 | 701200 | 2325 | 0.32 | 050318 | 451120 | 658913 | 0.21 |
| 000323 | 701220 | 2342 | 0.42 | 050320 | 451140 | 1358 | 0.33 |
| 000325 | 601240 | 1563 | 0.12 | 050322 | 451160 | 1593 | 0.11 |
| 000326 | 701260 | 1358 | 0.21 | 050323 | 451180 | 2323 | <0,1 |
| 000328 | 701280 | 1395 | <0.1 | 050324 | 451200 | 1921 | <0,1 |
| 000329 | 701300 | 1391 | 0.18 | 050327 | 451240 | 194201 | 0.12 |
| 000330 | 701320 | 3588 | <0.1 | 050329 | 451260 | 1358 | <0,1 |
| 000331 | 601340 | 4317 | <0.1 | 050330 | 451280 | 3371 | 0.32 |
| 000402 | 701360 | 1358 | 0.15 | 050331 | 451300 | 3393 | 0.11 |
| 000403 | 801380 | 597905 | 0.8 | 050402 | 451320 | 2323 | <0,1 |
| 000407 | 801440 | 1345 | 0.11 | 050403 | 451340 | 1358 | <0,1 |
| 000408 | 601460 | 2325 | 0.27 | 050404 | 451360 | 1358 | <0,1 |
| 000410 | 701480 | 6586 | 0.82 | 050406 | 451400 | 134502 | <0,1 |
| 000411 | 701500 | 1358 | 0.17 | 050408 | 451420 | 1358 | <0,1 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 000412 | 801520 | 3588 | 0.29 |
| 000415 | 701540 | 1563 | 0.2 |
| 000416 | 801560 | 1552 | <0.1 |
| 000417 | 801580 | 1325 | <0,1 |
| 000419 | 801620 | 7224 | 0.59 |
| 000420 | 701640 | 1561 | <0,1 |
| 000423 | 801680 | 1552 | <0,1 |
| 000424 | 701700 | 2325 | 1.12 |
| 000425 | 701720 | 1396 | 0.2 |
| 000427 | 801740 | 1358 | 0.2 |
| 000428 | 701760 | 1563 | 0.2 |
| 000429 | 701780 | 3588 | 0.3 |
| 000430 | 801800 | 1395 | 0.4 |
| 000501 | 701820 | 1358 | 0.4 |
| 000502 | 601840 | 1358 | 0.4 |
| 000507 | 801880 | 1961 | 4.3 |
| 000509 | 701900 | 1358 | <0,2 |
| 000511 | 601920 | 2325 | 0.3 |
| 000513 | 701960 | 2543 | 0.2 |
| 000516 | 602000 | 1942 | 1.1 |
| 000520 | 702060 | 2342 | 0.3 |
| 000521 | 602080 | 2342 | 0.5 |
| 000523 | 702100 | 6586 | 0.57 |
| 000523 | 802105 | 1818 | <0,1 |
| 000526 | 702140 | 1358 | 0.22 |
| 000527 | 702160 | 1358 | 0.29 |
| 000528 | 802180 | 658919 | 0.76 |
| 000529 | 802200 | 1552 | 0.34 |
| 000601 | 702240 | 1358 | 0.21 |
| 000602 | 702260 | 1358 | 0.27 |
| 000603 | 602280 | 1563 | 0.35 |
| 000605 | 702300 | 2546 | 0.27 |
| 000606 | 802320 | 1961 | 7.0 |
| 000608 | 702340 | 1358 | 0.15 |
| 000609 | 802360 | 1358 | 0.13 |
| 000610 | 702380 | 1391 | 0.24 |
| 000611 | 602400 | 3525 | 0.37 |
| 050411 | 451460 | 1358 | <0,1 |
| 050412 | 451480 | 194201 | <0,1 |
| 050414 | 451500 | 658919 | <0,1 |
| 050415 | 451520 | 1358 | <0,1 |
| 050417 | 451540 | 1358 | <0,1 |
| 050418 | 451560 | 2542 | <0,1 |
| 050420 | 451580 | 1563 | <0,1 |
| 050423 | 451620 | 2553 | <0,1 |
| 050424 | 451640 | 1358 | 0.74 |
| 050425 | 451660 | 2323 | 0.32 |
| 050427 | 451680 | 1357 | 0.23 |
| 050429 | 451700 | 4317 | 0.16 |
| 050430 | 451720 | 1358 | <0,1 |
| 050501 | 451740 | 1358 | 0.73 |
| 050502 | 451760 | 1358 | 3.01 |
| 050503 | 451771 | 181902 | 0.16 |
| 050503 | 451780 | 658919 | <0,1 |
| 050505 | 451800 | 1358 | 0.3 |
| 050506 | 451820 | 3393 | 0.37 |
| 050507 | 451840 | 1358 | 0.27 |
| 050509 | 451860 | 1781 | 1.33 |
| 050510 | 451880 | 1961 | 1.08 |
| 050512 | 451900 | 1358 | 0.47 |
| 050513 | 451920 | 2323 | 0.43 |
| 050514 | 451940 | 6631 | <0,1 |
| 050518 | 451980 | 1961 | 1.15 |
| 050521 | 452000 | 5413 | 0.32 |
| 050522 | 452020 | 2323 | 0.17 |
| 050525 | 452060 | 231920 | 0.42 |
| 050526 | 452080 | 5855 | 1.55 |
| 050528 | 452100 | 3371 | <0,1 |
| 050529 | 452120 | 231921 | <0,1 |
| 050530 | 452140 | 2323 | <0,1 |
| 050601 | 452160 | 2546 | <0,1 |
| 050602 | 452180 | 2323 | 1.31 |
| 050604 | 452200 | 1552 | 0.76 |
| 050605 | 452220 | 2323 | 0.37 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 000613 | 602420 | 3594 | 0.19 |
| 000615 | 702440 | 1358 | 0.46 |
| 000616 | 702460 | 2324 | 0.62 |
| 000619 | 802500 | 3551 | 0.13 |
| 000621 | 802520 | 2325 | 0.33 |
| 000622 | 702540 | 2325 | 0.37 |
| 000623 | 602560 | 1358 | 0.55 |
| 000624 | 702580 | 1358 | 0.74 |
| 000627 | 802620 | 1932 | 9.1 |
| 000628 | 702640 | 2325 | 0.36 |
| 000630 | 702660 | 1358 | 0.37 |
| 000703 | 702700 | 194201 | 0.57 |
| 000704 | 702720 | 2325 | 0.29 |
| 000705 | 802740 | 1961 | 0.66 |
| 000708 | 602780 | 1358 | 0.11 |
| 000709 | 702800 | 2325 | 0.13 |
| 000710 | 702820 | 1325 | 0.13 |
| 000712 | 702840 | 194201 | 1.1 |
| 000713 | 702860 | 1358 | <0,1 |
| 000801 | 802880 | 2342 | 0.2 |
| 800802 | 802900 | 1452 | <0,1 |
| 000804 | 802920 | 1358 | 0.33 |
| 000805 | 802940 | 2325 | 0.19 |
| 000808 | 802980 | 1276 | 0.11 |
| 000810 | 803000 | 1358 | 0.12 |
| 000815 | 803040 | 3588 | 0.2 |
| 000816 | 803060 | 1961 | 1.02 |
| 000818 | 803080 | 2323 | <0,1 |
| 000819 | 803100 | 6586 | 0.18 |
| 000820 | 803120 | 2342 | 0.35 |
| 000824 | 803160 | 1358 | 0.16 |
| 000825 | 803180 | 1396 | 0.32 |
| 000826 | 803200 | 2546 | 0.16 |
| 000830 | 803260 | 2546 | 0.26 |
| 000901 | 803280 | 1358 | 0.37 |
| 000902 | 803300 | 6586 | 0.42 |
| 000903 | 803320 | 1358 | 0.2 |

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 050607 | 452240 | 6211 | 0.27 |
| 050609 | 452260 | 1335 | 0.56 |
| 050610 | 452280 | 2323 | 0.22 |
| 050611 | 452300 | 1276 | <0,1 |
| 050613 | 452320 | 1563 | <0,1 |
| 050614 | 452340 | 1358 | <0,1 |
| 050616 | 452360 | 1335 | <0,1 |
| 050617 | 452380 | 2323 | 0.33 |
| 050619 | 452400 | 6216 | 0.19 |
| 050620 | 452420 | 5855 | 1.22 |
| 050621 | 452440 | 1358 | 0.83 |
| 050622 | 452460 | 1358 | 0.34 |
| 050624 | 452480 | 231928 | 0.29 |
| 050625 | 452500 | 1921 | <0,1 |
| 050626 | 452520 | 1563 | <0,1 |
| 050628 | 452540 | 1358 | 0.17 |
| 050701 | 452560 | 2323 | 0.37 |
| 050703 | 452580 | 1913 | 0.59 |
| 050704 | 452600 | 1358 | 0.41 |
| 050706 | 452620 | 1358 | 0.29 |
| 050708 | 452640 | 597905 | 0.46 |
| 050709 | 452660 | 1358 | <0,1 |
| 050713 | 452700 | 1358 | <0,1 |
| 050714 | 452720 | 1961 | 1.16 |
| 050810 | 452780 | 6216 | 0.62 |
| 050811 | 452800 | 2323 | 0.68 |
| 050813 | 452820 | 1911 | 0.63 |
| 050816 | 452840 | 1961 | 1.53 |
| 050817 | 452860 | 1358 | 0.35 |
| 050819 | 452880 | 2323 | 0.71 |
| 050820 | 452900 | 658919 | 0.8 |
| 050821 | 452920 | 1335 | <0,1 |
| 050823 | 452940 | 2323 | <0,1 |
| 050824 | 452960 | 1358 | 0.38 |
| 050826 | 452980 | 127933 | 0.1 |
| 050827 | 453000 | 1358 | 0.22 |
| 050830 | 453020 | 1358 | 0.24 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm | DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|---|---|---|---|
| 000905 | 803340 | 1563 | 0.27 | 050831 | 453040 | 1961 | 0.78 |
| 000906 | 803360 | 1555 | 0.23 | 050902 | 453060 | 2546 | <0,1 |
| 000909 | 803400 | 1961 | 0.59 | 050905 | 453100 | 1358 | <0,1 |
| 000911 | 803420 | 6586 | 0.84 | 050906 | 453120 | 2323 | 0.16 |
| 000912 | 803440 | 1563 | <0.1 | 050907 | 453140 | 1358 | 0.45 |
| 000913 | 803460 | 2546 | <0.1 | 050910 | 453160 | 1552 | 0.69 |
| 000916 | 803480 | 1358 | 0.33 | 050911 | 453180 | 231920 | 0.35 |
| 000918 | 803500 | 6586 | 0.33 | 050912 | 453200 | 1358 | 0.62 |
| 000920 | 803520 | 658919 | 0.61 | 050913 | 453220 | 1358 | 0.25 |
| 000923 | 803560 | 127933 | 0.49 | 050915 | 453240 | 1358 | 0.15 |
| 000924 | 803580 | 1358 | 0.5 | 050916 | 453260 | 2542 | 0.33 |
| 000925 | 803600 | 1358 | 0.19 | 050917 | 453280 | 1358 | <0,1 |
| 000927 | 803620 | 127915 | 0.34 | 050919 | 453300 | 1358 | <0,1 |
| 000928 | 803640 | 2323 | <0.1 | 050920 | 453320 | 1358 | 0.52 |
| 000929 | 803660 | 2325 | <0.1 | 050921 | 453340 | 1552 | <0,1 |
| 000930 | 803680 | 658919 | 0.22 | 050923 | 453360 | 1358 | 0.41 |
| 001004 | 803720 | 134502 | 0.38 | 050925 | 453380 | 1358 | 0.54 |
| 001006 | 803740 | 2342 | <0.1 | 050926 | 453400 | 1358 | 0.47 |
| 001007 | 803760 | 597905 | 1.0072 | 050927 | 453420 | 127933 | <0,1 |
| 001009 | 803780 | 2546 | 0.27 | 050929 | 453440 | 1358 | 0.29 |
| 001010 | 803800 | 2325 | 0.3 | 050930 | 453460 | 2323 | 0.72 |
| 001011 | 803820 | 1563 | 0.18 | 051001 | 453480 | 1358 | 0.46 |
| 001013 | 803840 | 1552 | 0.18 | 051002 | 453500 | 2323 | 0.4 |
| 001014 | 803860 | 1358 | <0.1 | 051004 | 453520 | 6216 | 1.09 |
| 001015 | 803880 | 1961 | 0.34 | 051005 | 453540 | 1921 | 1.46 |
| 001016 | 803900 | 1358 | 0.1 | 051006 | 453560 | 2323 | 2.41 |
| 001020 | 803960 | 3525 | <0.1 | 051007 | 453580 | 2323 | 0.39 |
| 001021 | 803980 | 5855 | 0.52 | 051009 | 453600 | 1276 | 0.38 |
| 001024 | 804020 | 2542 | 0.52 | 051010 | 453620 | 2542 | 0.36 |
| 001025 | 804040 | 597905 | 0.97 | 051011 | 453640 | 6112 | <0,1 |
| 001027 | 804060 | 1358 | 0.29 | 051013 | 453660 | 1358 | 0.33 |
| 001028 | 804080 | 2325 | 0.2 | 051014 | 453680 | 1358 | 0.32 |
| 001029 | 804100 | 2543 | 0.21 | 051015 | 453700 | 1932 | 0.12 |
| 001030 | 804120 | 2325 | <0.1 | 051016 | 453720 | 6216 | 0.49 |
| 001031 | 804140 | 3525 | 0.4 | 051018 | 453740 | 231920 | 0.33 |
| 001102 | 804160 | 1358 | 0.2 | 051019 | 453760 | 5855 | 1.43 |
| 001103 | 804180 | 2325 | 0.14 | 051023 | 453800 | 2323 | 0.46 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 001104 | 804200 | 1396 | 0.37 |
| 001105 | 804220 | 2342 | 0.31 |
| 001108 | 804260 | 2325 | 0.16 |
| 001110 | 804300 | 1272 | 0.62 |
| 001111 | 804320 | 1358 | 0.69 |
| 001113 | 804340 | 2542 | 0.46 |
| 001114 | 804360 | 2323 | 0.55 |
| 001117 | 804400 | 1594 | 0.33 |
| 001121 | 804440 | 1513 | 0.15 |
| 001123 | 804460 | 1358 | 0.14 |
| 001124 | 804480 | 1358 | 0.21 |
| 001125 | 804495 | 1818 | 0.68 |
| 001125 | 804500 | 1391 | 0.34 |
| 001126 | 804520 | 127915 | <0.1 |
| 001128 | 804540 | 1358 | 0.4 |
| 001201 | 804560 | 1358 | <0.1 |
| 001202 | 804580 | 1961 | 0.8 |
| 001203 | 804600 | 334204 | 0.22 |
| 001208 | 804640 | 1358 | 0.28 |
| 001209 | 804660 | 338944 | 0.3 |
| 001210 | 804680 | 2546 | 0.21 |
| 001214 | 804700 | 5855 | 0.51 |
| 001215 | 804720 | 1358 | 2.26 |
| 001218 | 804760 | 3588 | 1.04 |
| 001219 | 804780 | 658919 | <0.1 |
| 001220 | 804799 | 1818 | 1.01 |
| 001220 | 804800 | 1961 | 0.92 |
| 001221 | 804820 | 2325 | <0.1 |
| 001223 | 804840 | 1396 | 0.33 |
| **2001** | | | |
| 010108 | 810020 | 1276 | 0.15 |
| 010110 | 810040 | 1942 | 0.15 |
| 010111 | 810060 | 1961 | 3.59 |
| 010112 | 810080 | 3525 | 0.39 |
| 010113 | 810100 | 2546 | 0.18 |
| 010115 | 810120 | 1358 | 0.37 |

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 051025 | 453820 | 2542 | 0.46 |
| 051026 | 453840 | 194201 | 0.99 |
| 051029 | 453900 | 231921 | 0.11 |
| 051031 | 453920 | 1357 | <0,1 |
| 051101 | 453940 | 2323 | 1.34 |
| 051102 | 453960 | 6112 | 0.17 |
| 051106 | 454000 | 2323 | 0.33 |
| 051107 | 454020 | 1911 | 0.67 |
| 051108 | 454040 | 134502 | 0.46 |
| 051110 | 454060 | 1358 | 0.46 |
| 051111 | 454080 | 1358 | <0,1 |
| 051112 | 454100 | 1358 | 0.21 |
| 051113 | 454120 | 658919 | 0.57 |
| 051114 | 454140 | 7341 | 0.18 |
| 051116 | 454160 | 2546 | 0.33 |
| 051117 | 454180 | 1358 | 0.25 |
| 051118 | 454200 | 2323 | 0.31 |
| 051119 | 454220 | 6216 | 0.17 |
| 051121 | 454240 | 658913 | 0.15 |
| 051122 | 454260 | 1358 | <0,1 |
| 051123 | 454280 | 2323 | <0,1 |
| 051125 | 454300 | 1358 | 0.17 |
| 051126 | 454320 | 1358 | <0,1 |
| 051127 | 454340 | 1552 | <0,1 |
| 051129 | 454360 | 1358 | 0.11 |
| 051201 | 454400 | 1358 | 0.2 |
| 051202 | 454420 | 194201 | 0.19 |
| 051205 | 454440 | 6216 | 0.18 |
| 051206 | 454460 | 2542 | 0.2 |
| 051207 | 454480 | 1358 | <0,1 |
| 051208 | 454500 | 1358 | 0.17 |
| 051209 | 454520 | 1358 | 0.16 |
| 051211 | 454540 | 658924 | 1.04 |
| 051214 | 454580 | 131977 | 0.23 |
| 051216 | 454600 | 1358 | 0.41 |
| 051218 | 454640 | 1563 | 0.42 |
| 051219 | 454660 | 1358 | 0.14 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 010119 | 810180 | 3382 | 0.39 |
| 010121 | 810200 | 2325 | 0.24 |
| 010122 | 810220 | 2325 | 0.76 |
| 010123 | 810240 | 1358 | 0.13 |
| 010124 | 810260 | 2342 | 0.17 |
| 010126 | 810280 | 1563 | 0.26 |
| 010127 | 810300 | 658919 | 0.22 |
| 010128 | 810320 | 1358 | 0.15 |
| 010429 | 810340 | 1276 | 0.42 |
| 010131 | 810360 | 6211 | 0.95 |
| 010201 | 810380 | 1942 | 0.57 |
| 010203 | 810400 | 1358 | <0,1 |
| 010204 | 810420 | 1396 | 0.27 |
| 010205 | 810440 | 2325 | 0.37 |
| 010207 | 810460 | 1358 | 0.32 |
| 010208 | 810480 | 3588 | 0.26 |
| 010210 | 810500 | 2325 | 0.38 |
| 010211 | 810520 | 1358 | 0.27 |
| 010212 | 810540 | 1526 | 0.24 |
| 010214 | 810560 | 1358 | 0.3 |
| 010216 | 810600 | 1563 | <0,1 |
| 010218 | 810620 | 7224 | 0.26 |
| 010220 | 810660 | 6586 | 0.55 |
| 010222 | 810680 | 1563 | 0.29 |
| 010223 | 810700 | 2341 | 0.18 |
| 010225 | 810720 | 3525 | 0.17 |
| 010226 | 810740 | 1358 | <0,1 |
| 010227 | 810760 | 1961 | 2.46 |
| 010301 | 810780 | 1391 | <0,1 |
| 010304 | 810820 | 1358 | 0.21 |
| 010305 | 810840 | 2325 | <0,1 |
| 010306 | 810860 | 2325 | <0,1 |
| 0103 | 810860 | 2325 | <0,1 |
| 0103 | 810861 | 1818 | 0.16 |
| 010308 | 810880 | 1391 | 0.11 |
| 010309 | 810900 | 2341 | 0.26 |
| 010311 | 810920 | 2325 | <0,1 |
| 051220 | 454680 | 597905 | 0.74 |
| 051222 | 454700 | 1358 | <0,1 |
| 051223 | 454720 | 1358 | <0,1 |
| 051224 | 454740 | 1358 | <0,1 |
| 051227 | 454780 | 231920 | 0.16 |
| 051228 | 454800 | 1358 | 0.14 |
| 051229 | 454820 | 1358 | <0,1 |
| 051230 | 454840 | 2323 | 0.27 |
| 051231 | 454860 | 1358 | 0.2 |
| **2006** | | | |
| 060102 | 460020 | 1358 | <0,1 |
| 060104 | 460040 | 2323 | 0.95 |
| 060104 | 460060 | 1358 | <0,1 |
| 060106 | 460080 | 1358 | 0.1 |
| 060107 | 460100 | 2323 | 0.34 |
| 060108 | 460120 | 127933 | 0.25 |
| 060109 | 460140 | 1563 | <0,1 |
| 060110 | 460160 | 1358 | <0,1 |
| 060113 | 460200 | 1358 | <0,1 |
| 060114 | 460220 | 1921 | 0.18 |
| 060116 | 460240 | 1357 | <0,1 |
| 060117 | 460260 | 231920 | <0,1 |
| 060118 | 460280 | 1358 | <0,1 |
| 060119 | 460300 | 658924 | <0,1 |
| 060120 | 460320 | 2395 | <0,1 |
| 060121 | 460340 | 621701 | 0.14 |
| 060123 | 460360 | 1563 | 0.11 |
| 060124 | 460380 | 1358 | 0.11 |
| 060125 | 460400 | 2323 | 0.85 |
| 060127 | 460420 | 1358 | 0.52 |
| 060128 | 460440 | 1358 | 0.37 |
| 060129 | 460460 | 1276 | 0.21 |
| 060130 | 460480 | 2542 | 0.12 |
| 060131 | 460500 | 1358 | 0.53 |
| 060201 | 460520 | 1358 | <0,1 |
| 060203 | 460540 | 3393 | 0.35 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 010507 | 811780 | 597905 | 0.5 |
| 010508 | 811800 | 1526 | <0,2 |
| 010509 | 811820 | 2342 | 0.3 |
| 010513 | 811860 | 1391 | <0,2 |
| 010515 | 811880 | 1358 | 0.25 |
| 010516 | 811900 | 2546 | 0.24 |
| 010519 | 811920 | 1382 | 0.27 |
| 010520 | 811940 | 1513 | 0.27 |
| 010522 | 811960 | 1276 | <0,2 |
| 010522 | 811966 | 1818 | 1.4 |
| 010523 | 811980 | 2323 | 0.2 |
| 010524 | 812000 | 1358 | 0.2 |
| 010525 | 812020 | 2395 | 1.5 |
| 010526 | 812040 | 1358 | 0.3 |
| 010528 | 812060 | 2542 | 0.2 |
| 010529 | 812080 | 1394 | 0.2 |
| 010529 | 812083 | 1818 | 1.0 |
| 010530 | 812100 | 2325 | 0.3 |
| 010601 | 812120 | 1358 | 2.0 |
| 010604 | 812160 | 1358 | <0,2 |
| 010605 | 812180 | 1394 | 0.2 |
| 010606 | 812200 | 2325 | <0,2 |
| 010608 | 812220 | 1358 | 0.2 |
| 010609 | 812240 | 1358 | 0.4 |
| 010610 | 812260 | 597905 | 1.5 |
| 010611 | 812280 | 2325 | 0.4 |
| 010613 | 812300 | 1358 | 0.3 |
| 010614 | 812320 | 1358 | 0.2 |
| 010616 | 812340 | 2546 | 0.4 |
| 010617 | 812360 | 2325 | 0.4 |
| 010618 | 812380 | 1358 | 0.3 |
| 010620 | 812400 | 1358 | 0.2 |
| 010621 | 812420 | 1358 | 0.2 |
| 010622 | 812440 | 658919 | 1.2 |
| 010623 | 812460 | 2325 | 0.2 |
| 010625 | 812480 | 2546 | 0.2 |
| 010626 | 812500 | 1358 | <0,2 |
| 060327 | 461360 | 6112 | 0.26 |
| 060329 | 461380 | 1358 | 0.18 |
| 060330 | 461400 | 1357 | 0.48 |
| 060331 | 461420 | 621701 | 0.49 |
| 060402 | 461440 | 2323 | 0.27 |
| 060403 | 461460 | 1358 | 0.18 |
| 060405 | 461480 | 181902 | 0.99 |
| 060407 | 461500 | 4311 | 0.47 |
| 060408 | 461520 | 3594 | 0.55 |
| 060409 | 461540 | 1358 | 0.46 |
| 060412 | 461580 | 1932 | 0.88 |
| 060413 | 461600 | 1358 | 0.7 |
| 060415 | 461620 | 1358 | 0.11 |
| 060416 | 461640 | 6611 | 0.57 |
| 060418 | 461660 | 1961 | 0.36 |
| 060420 | 461680 | 194201 | 0.42 |
| 060423 | 461700 | 2323 | 0.11 |
| 060424 | 461720 | 1358 | 0.27 |
| 060425 | 461740 | 2395 | <0,1 |
| 060426 | 461760 | 2323 | 0.18 |
| 060427 | 461780 | 2323 | <0,1 |
| 060429 | 461800 | 1358 | 0.31 |
| 060430 | 461820 | 2546 | 0.4 |
| 060501 | 461840 | 2553 | 0.16 |
| 060503 | 461860 | 1961 | 0.22 |
| 060504 | 461880 | 658924 | 0.28 |
| 060507 | 461920 | 2546 | 0.17 |
| 060509 | 461940 | 1358 | 0.12 |
| 060510 | 461960 | 127933 | <0,1 |
| 060512 | 461980 | 2323 | 0.33 |
| 060514 | 462000 | 3363 | 1.03 |
| 060517 | 462020 | 2323 | 0.32 |
| 060518 | 462040 | 3393 | 0.55 |
| 060521 | 462080 | 1921 | 1.52 |
| 060523 | 462100 | 658919 | 0.66 |
| 060524 | 462120 | 2323 | 0.21 |
| 060525 | 462140 | 658924 | 0.85 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 010628 | 812520 | 1335 | <0,2 |
| 010629 | 812540 | 2325 | 0.2 |
| 010701 | 812560 | 2323 | 0.2 |
| 010702 | 812580 | 1391 | |
| 010703 | 812600 | 1552 | |
| 010705 | 812620 | 1358 | |
| 010706 | 812640 | 1358 | |
| 010708 | 812660 | 1358 | |
| 010709 | 812680 | 1563 | |
| 010711 | 812700 | 2325 | |
| 010803 | 812760 | 1395 | 0.32 |
| 010804 | 812780 | 2325 | <0,1 |
| 010805 | 812800 | 1358 | 0.44 |
| 010807 | 812820 | 1563 | 0.14 |
| 010809 | 812840 | 1358 | 0.37 |
| 010809 | 812860 | 5857 | 1.41 |
| 010813 | 812880 | 1395 | 0.42 |
| 010814 | 812900 | 1388 | 0.21 |
| 010815 | 812920 | 658919 | 0.63 |
| 010817 | 812940 | 2325 | <0,1 |
| 010818 | 812960 | 2325 | <0,1 |
| 010819 | 812980 | 1358 | <0,1 |
| 010821 | 813020 | 1358 | 0.43 |
| 010823 | 813040 | 1358 | 0.23 |
| 010824 | 813060 | 1358 | 0.22 |
| 010826 | 813080 | 2325 | <0,1 |
| 010828 | 813100 | 1358 | 0.79 |
| 010829 | 813120 | 1563 | 0.55 |
| 010830 | 813140 | 1961 | 1.00 |
| 010831 | 813160 | 1358 | 0.40 |
| 010902 | 813180 | 1358 | 0.80 |
| 010903 | 813200 | 1563 | 0.48 |
| '010904 | 813220 | 1563 | 0.14 |
| 010905 | 813240 | 1961 | 1.37 |
| 010906 | 813260 | 1358 | 0.42 |
| 010908 | 813280 | 2395 | <0,1 |
| 010910 | 813320 | 3588 | 0.39 |
| 060526 | 462160 | 1358 | 0.21 |
| 060527 | 462180 | 1358 | 0.12 |
| 060529 | 462200 | 2546 | 0.51 |
| 060531 | 462220 | 2323 | 0.16 |
| 060601 | 462240 | 2323 | 0.31 |
| 060603 | 462260 | 1358 | 0.38 |
| 060604 | 462280 | 658924 | 0.67 |
| 060605 | 462300 | 135801 | 0.14 |
| 060606 | 462320 | 1358 | 0.19 |
| 060608 | 462340 | 2546 | 0.21 |
| 060609 | 462360 | 3393 | 0.4 |
| 060610 | 462380 | 1358 | 0.22 |
| 060611 | 462400 | 6992 | <0,1 |
| 060612 | 462420 | 2546 | 0.23 |
| 060614 | 462440 | 1358 | 0.27 |
| 060615 | 462460 | 1358 | 0.16 |
| 060617 | 462480 | 3371 | 0.39 |
| 060618 | 462500 | 131977 | 0.11 |
| 060619 | 462520 | 1358 | 0.16 |
| 060621 | 462540 | 6112 | 0.28 |
| 060622 | 462560 | 658919 | 1.49 |
| 060623 | 462580 | 1552 | 0.2 |
| 060624 | 462600 | 2323 | <0,1 |
| 060627 | 462620 | 5412 | <0,1 |
| 060630 | 462640 | 194201 | 0.84 |
| 060702 | 462660 | 658924 | 0.29 |
| 060704 | 462680 | 6211 | 0.8 |
| 060706 | 462700 | 1358 | <0,1 |
| 060708 | 462720 | 135801 | 0.2 |
| 060709 | 462740 | 6112 | 0.96 |
| 060710 | 462760 | 6112 | 1.17 |
| 060712 | 462780 | 658919 | 0.91 |
| 060713 | 462800 | 1358 | <0,1 |
| 060731 | 462820 | 2323 | 0.33 |
| 060802 | 462840 | 658919 | 0.93 |
| 060804 | 462860 | 658919 | 1.09 |
| 060805 | 462880 | 2323 | 0.26 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 010911 | 813340 | 7412 | 0.42 |
| 010913 | 813360 | 1942 | 1.35 |
| 010914 | 813380 | 194201 | 0.81 |
| 010915 | 813400 | 2325 | 0.41 |
| 010916 | 813420 | 2342 | 0.52 |
| 010918 | 813440 | 7412 | 0.33 |
| 010919 | 813460 | 2325 | 0.16 |
| 010921 | 813480 | 658919 | 0.76 |
| 010923 | 813520 | 1512 | 0.25 |
| 010926 | 813560 | 1913 | <0,1 |
| 010927 | 813580 | 1358 | <0,1 |
| 010930 | 813620 | 2342 | 0.24 |
| 011001 | 813640 | 135901 | 0.52 |
| 011002 | 813660 | 2325 | 0.33 |
| 011005 | 813700 | 1358 | 0.24 |
| '011006 | 813720 | 1563 | <0,1 |
| 011007 | 813740 | 6611 | <0,1 |
| 011009 | 813780 | 1358 | 0.19 |
| 011010 | 813800 | 1396 | <0,1 |
| 011012 | 813820 | 1396 | 0.2 |
| 011014 | 813840 | 1358 | 0.55 |
| 011015 | 813860 | 2341 | 0.44 |
| 011016 | 813880 | 1358 | 0.17 |
| 011018 | 813900 | 2323 | 0.21 |
| 011020 | 813920 | 6586 | 0.87 |
| 011021 | 813940 | 1358 | <0,1 |
| 011023 | 813960 | 1563 | <0,1 |
| 011024 | 813980 | 1512 | 0.21 |
| 011026 | 814000 | 2325 | 0.37 |
| 011027 | 814020 | 1781 | 0.64 |
| 011028 | 814040 | 3594 | 0.15 |
| 011029 | 814060 | 1358 | 0.14 |
| 011030 | 814080 | 1563 | 0.32 |
| 011102 | 814120 | 1358 | 0.25 |
| 011103 | 814140 | 3525 | 0.33 |
| 011104 | 814160 | 1395 | 0.16 |
| 011106 | 814200 | 1563 | 0.15 |
| 060807 | 462900 | 1358 | <0,1 |
| 060809 | 462920 | 1961 | <0,1 |
| 060810 | 462940 | 1358 | 0.33 |
| 060812 | 462960 | 1358 | 0.2 |
| 060813 | 462980 | 658919 | 0.46 |
| 060814 | 463000 | 1358 | 0.12 |
| 060815 | 463020 | 621701 | 0.27 |
| 060817 | 463040 | 131977 | <0,1 |
| 060818 | 463060 | 1358 | 0.12 |
| 060819 | 463080 | 658919 | 0.29 |
| 060821 | 463100 | 1358 | <0,1 |
| 060823 | 463140 | 2323 | 0.32 |
| 060825 | 463160 | 1358 | 0.22 |
| 060828 | 463200 | 6216 | 0.72 |
| 060829 | 463220 | 658924 | 0.96 |
| 060830 | 463240 | 1358 | 0.22 |
| 060901 | 463260 | 1358 | <0,1 |
| 060902 | 463279 | 1818 | 1.14 |
| 060902 | 463280 | 6617 | 0.67 |
| 060906 | 463340 | 194201 | 0.39 |
| 060908 | 463360 | 6216 | <0,1 |
| 060909 | 463380 | 1358 | <0,1 |
| 060910 | 463400 | 1358 | 0.21 |
| 060911 | 463420 | 6112 | 0.49 |
| 060913 | 463440 | 1358 | 0.19 |
| 060915 | 463460 | 2323 | 0.41 |
| 060915 | 463480 | 2323 | 0.11 |
| 060917 | 463500 | 130601 | 0.12 |
| 060918 | 463520 | 1358 | 0.4 |
| 060920 | 463540 | 658919 | 1.08 |
| 060921 | 463560 | 1358 | <0,1 |
| 060922 | 463580 | 597905 | 0.29 |
| 060924 | 463600 | 658919 | <0,1 |
| 060925 | 463620 | 1358 | <0,1 |
| 060926 | 463640 | 1358 | <0,1 |
| 060927 | 463660 | 2323 | 0.33 |
| 060929 | 463680 | 1358 | 0.1 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 011107 | 814214 | 181902 | 0.72 |
| 011108 | 814220 | 3525 | 0.62 |
| 011109 | 814240 | 2325 | 0.4 |
| 011111 | 814260 | 3444 | 0.45 |
| 011112 | 814280 | 1396 | 0.23 |
| 011113 | 814300 | 1382 | <0,1 |
| 011114 | 814320 | 3525 | 0.23 |
| 011117 | 814340 | 194201 | 2.27 |
| 011118 | 814360 | 658919 | 1.02 |
| 011121 | 814400 | 658919 | 1.46 |
| 011124 | 814440 | 1961 | 0.56 |
| 011125 | 814460 | 658919 | 0.67 |
| 011127 | 814480 | 1358 | 0.1 |
| 011127 | 814500 | 1264 | 0.55 |
| 011129 | 814520 | 1358 | 0.27 |
| 011201 | 814540 | 1961 | 0.71 |
| 011203 | 814580 | 1358 | 0.16 |
| 011206 | 814620 | 151904 | 0.23 |
| 011208 | 814660 | 1358 | 0.17 |
| 011211 | 814680 | 658919 | 0.47 |
| 011212 | 814700 | 1512 | 0.45 |
| 011214 | 814720 | 1563 | 0.17 |
| 011215 | 814740 | 127933 | 0.34 |
| 011217 | 814760 | 7224 | 0.38 |
| 011218 | 814780 | 3588 | 0.15 |
| 011221 | 814800 | 1563 | 0.11 |
| 011221 | 814820 | 2325 | 0.16 |
| 011222 | 814840 | 1358 | 0.61 |
| 011223 | 814860 | 2325 | 0.28 |
| 011226 | 814880 | 2342 | 0.37 |
| 011227 | 814900 | 1563 | 0.15 |
| 011228 | 814920 | 1358 | 0.27 |
| '011229 | 814940 | 1395 | 0.33 |
| **2002** | | | |
| 020102 | 820020 | 1276 | 0.36 |
| 020103 | 820040 | 1913 | <0,1 |

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 060930 | 463700 | 1358 | 0.27 |
| 061001 | 463720 | 1358 | 0.2 |
| 061002 | 463740 | 1358 | 0.21 |
| 061004 | 463760 | 1911 | 0.12 |
| 061005 | 463780 | 1358 | 0.21 |
| 061006 | 463800 | 1358 | <0,1 |
| 061007 | 463820 | 6216 | 0.26 |
| 061008 | 463840 | 127933 | 0.1 |
| 061009 | 463860 | 2323 | 0.36 |
| 061011 | 463880 | 1358 | 0.12 |
| 061012 | 463900 | 1358 | 0.12 |
| 061013 | 463920 | 127933 | 0.22 |
| 061014 | 463940 | 2323 | <0,1 |
| 061016 | 463960 | 1358 | 0.25 |
| 061017 | 463980 | 658919 | 0.63 |
| 061019 | 464000 | 1358 | 0.16 |
| 061020 | 464020 | 1358 | 0.44 |
| 061021 | 464040 | 2546 | <0,1 |
| 061023 | 464060 | 5855 | 0.59 |
| 061024 | 464080 | 2323 | 0.1 |
| 061025 | 464100 | 1358 | <0,1 |
| 061026 | 464120 | 1921 | 0.1 |
| 061028 | 464140 | 2546 | <0,1 |
| 061029 | 464160 | 194201 | <0,1 |
| 061031 | 464180 | 658924 | 0.35 |
| 061101 | 464200 | 1358 | <0,1 |
| 061103 | 464220 | 6112 | <0,1 |
| 061105 | 464240 | 5855 | |
| 061105 | 964240 | 5855 | 0.45 |
| 061106 | 464260 | 658919 | 0.13 |
| 061107 | 464280 | 658919 | 0.37 |
| 061108 | 464300 | 1358 | 0.15 |
| 061110 | 464320 | 127933 | 0.24 |
| 061111 | 464340 | 334204 | 0.35 |
| 061112 | 464360 | 194201 | 0.62 |
| 061113 | 464380 | 6611 | 0.27 |
| 061115 | 464400 | 1358 | <0,1 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 020104 | 820060 | 135801 | 0.34 |
| 020107 | 820100 | 1563 | 0.32 |
| 020108 | 820120 | 1563 | 0.38 |
| 020109 | 820140 | 2325 | 0.34 |
| 020111 | 820160 | 1358 | 0.14 |
| 020112 | 820180 | 5857 | 1.50 |
| 020113 | 820200 | 1395 | <0,1 |
| 020114 | 820201 | 191601 | 0.52 |
| 020115 | 820220 | 6211 | 0.59 |
| 020116 | 820240 | 1512 | 0.34 |
| 020117 | 820260 | 127901 | 0.26 |
| 020118 | 820280 | 1325 | 0.24 |
| 020120 | 820300 | 5855 | <0,1 |
| 020121 | 820320 | 658919 | 0.57 |
| 020122 | 820340 | 1358 | 0.34 |
| 020123 | 820360 | 2325 | 0.27 |
| 020125 | 820380 | 1563 | 0.25 |
| 020126 | 820400 | 1358 | 0.49 |
| 020127 | 820420 | 2323 | 0.32 |
| 020128 | 820440 | 1526 | 0.49 |
| 020129 | 820460 | 1358 | 0.34 |
| 020130 | 820480 | 2342 | 0.15 |
| 020201 | 820500 | 2342 | 0.34 |
| 020202 | 820520 | 5857 | <0,1 |
| 020203 | 820540 | 1358 | 0.2 |
| 020204 | 820560 | 3594 | <0,1 |
| 020205 | 820580 | 1358 | 0.2 |
| 020208 | 820620 | 1358 | 0.22 |
| 020209 | 820640 | 2341 | 0.14 |
| 020210 | 820660 | 658919 | 0.13 |
| 020211 | 820665 | 1818 | 0.88 |
| 020212 | 820680 | 5855 | 1.23 |
| 020213 | 820700 | 194201 | 0.71 |
| 020214 | 820720 | 2546 | 0.2 |
| 020215 | 820740 | 1358 | <0,1 |
| 020217 | 820760 | 1563 | 0.12 |
| 020219 | 820800 | 2553 | 0.13 |
| 061116 | 464420 | 1961 | 0.58 |
| 061118 | 464440 | 1358 | 0.13 |
| 061119 | 464460 | 1358 | 0.31 |
| 061121 | 464500 | 597905 | 0.43 |
| 061123 | 464520 | 6112 | 0.26 |
| 061125 | 464560 | 1358 | <0,1 |
| 061127 | 464580 | 597905 | 0.26 |
| 061128 | 464600 | 1358 | 0.16 |
| 061129 | 464620 | 1961 | <0,1 |
| 061201 | 464640 | 131981 | <0,1 |
| 061202 | 464660 | 1358 | <0,1 |
| 061205 | 464700 | 1358 | <0,1 |
| 061206 | 464720 | 2546 | <0,1 |
| 061207 | 464740 | 194201 | 0.34 |
| 061210 | 464760 | 597905 | 0.82 |
| 061211 | 464780 | 1358 | <0,1 |
| 061214 | 464820 | 1358 | 0.76 |
| 061217 | 464860 | 1358 | 0.12 |
| 061217 | 464874 | 131981 | 0.83 |
| 061218 | 464880 | 2355 | <0,1 |
| 061219 | 464900 | 658919 | 0.56 |
| 061221 | 464920 | 6112 | <0,1 |
| 061223 | 464960 | 1358 | 0.38 |
| 061224 | 464980 | 1921 | 0.19 |
| 061225 | 465000 | 6112 | 0.5 |
| 061227 | 465020 | 6112 | 0.77 |
| 061228 | 465040 | 2323 | 0.75 |
| 061229 | 465060 | 1358 | 0.2 |
| 061231 | 465080 | 194201 | 0.49 |
| **2007** | | | |
| 070101 | 465100 | 2857 | 0.67 |
| 070102 | 470020 | 6992 | 0.12 |
| 070103 | 470040 | 2323 | 0.17 |
| 070104 | 470060 | 6112 | <0,1 |
| 070106 | 470080 | 131977 | <0,1 |
| 070107 | 470100 | 658919 | 0.27 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 020222 | 820840 | 1358 | 0.21 |
| 020223 | 820860 | 1563 | 0.25 |
| 020225 | 820880 | 658919 | 0.85 |
| 020226 | 820900 | 1394 | 0.24 |
| 020228 | 820920 | 1358 | 0.23 |
| 020301 | 820940 | 597905 | 1.22 |
| 020303 | 820960 | 2323 | 0.94 |
| 020304 | 820980 | 2415 | 0.22 |
| 020305 | 821000 | 1563 | 0.27 |
| 020306 | 821020 | 1358 | 0.28 |
| 020308 | 821040 | 3393 | 0.47 |
| 020309 | 821060 | 1358 | 0.26 |
| 020310 | 821080 | 135901 | 0.36 |
| 020311 | 821100 | 1358 | 0.14 |
| 020312 | 821120 | 1391 | 0.34 |
| 020313 | 821140 | 1358 | 0.5 |
| 020315 | 821160 | 1416 | 0.35 |
| 020316 | 821180 | 1358 | 0.55 |
| 020317 | 821200 | 1552 | 0.28 |
| 020319 | 821220 | 658919 | 0.4 |
| 020322 | 821260 | 2323 | 0.5 |
| 020323 | 821280 | 1358 | 0.2 |
| 020324 | 821300 | 658919 | 0.4 |
| 020326 | 821320 | 3393 | 0.7 |
| 020327 | 821340 | 1563 | 0.2 |
| 020328 | 821360 | 5855 | 1 |
| 020330 | 821380 | 5855 | 1.2 |
| 020401 | 821400 | 658919 | 1.1 |
| 020403 | 821420 | 1358 | 0.5 |
| 020404 | 821440 | 1358 | 0.4 |
| 020405 | 821460 | 2325 | 0.2 |
| 020408 | 821480 | 2546 | 0.9 |
| 020409 | 821500 | 658919 | 0.6 |
| 020410 | 821520 | 2325 | 0.2 |
| 020412 | 821540 | 1561 | <0,2 |
| 020413 | 821560 | 2342 | <0,2 |
| 020414 | 821580 | 2325 | <0,2 |
| 070108 | 470120 | 1358 | 0.15 |
| 070109 | 470140 | 127933 | 0.3 |
| 070112 | 470180 | 1358 | 0.23 |
| 070113 | 470200 | 597905 | 0.42 |
| 070114 | 470220 | 1358 | <0,1 |
| 070116 | 470240 | 1358 | 3.32 |
| 070117 | 470260 | 2323 | 0.4 |
| 070119 | 470280 | 1358 | 7.43 |
| 070120 | 470300 | 6112 | 0.19 |
| 070121 | 470320 | 1276 | <0,1 |
| 070122 | 470340 | 1358 | 0.97 |
| 070124 | 470360 | 231920 | <0,1 |
| 070135 | 470380 | 1358 | <0,1 |
| 070127 | 470400 | 4312 | 0.53 |
| 070130 | 470440 | 1358 | 0.4 |
| 070201 | 470460 | 597905 | 0.42 |
| 070202 | 470480 | 1358 | 3.23 |
| 070203 | 470500 | 621701 | 0.73 |
| 070204 | 470520 | 2546 | 3.09 |
| 070207 | 470540 | 5855 | 5.46 |
| 070209 | 470560 | 621701 | 1.35 |
| 070210 | 470580 | 1358 | 0.77 |
| 070211 | 470600 | 1358 | 1.83 |
| 070213 | 470620 | 6112 | <0,1 |
| 070213 | 470625 | 181902 | 2.12 |
| 070214 | 470640 | 1276 | 2.48 |
| 070215 | 470660 | 1358 | 0.7 |
| 070217 | 470680 | 658919 | 0.18 |
| 070218 | 470700 | 1358 | 0.15 |
| 070220 | 470720 | 1358 | <0,1 |
| 070221 | 470740 | 1918 | <0,1 |
| 070223 | 470760 | 1358 | <0,1 |
| 070224 | 470780 | 1358 | <0,1 |
| 070225 | 470800 | 1358 | <0,1 |
| 070226 | 470820 | 2355 | <0,1 |
| 070228 | 470840 | 2323 | 0.4 |
| 070301 | 470860 | 6112 | 0.45 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 020416 | 821600 | 1358 | 0.3 |
| 020417 | 821620 | 1358 | <0,2 |
| 020418 | 821640 | 1358 | <0,2 |
| 020419 | 821660 | 1358 | 0.4 |
| 020420 | 821680 | 1358 | 0.6 |
| 020422 | 821700 | 1961 | 6.0 |
| 020423 | 821716 | 181902 | 0.96 |
| 020423 | 821720 | 1358 | 0.11 |
| 020424 | 821740 | 1563 | 0.52 |
| 020426 | 821760 | 1358 | 0.67 |
| 020426 | 821780 | 2325 | 0.49 |
| 020428 | 821800 | 1545 | <0,1 |
| 020429 | 821820 | 1961 | 6.55 |
| 020501 | 821840 | 1357 | 0.21 |
| 020502 | 821860 | 1563 | 0.58 |
| 020503 | 821880 | 1358 | 0.38 |
| 020504 | 821900 | 2325 | 0.4 |
| 020506 | 821920 | 1358 | 0.38 |
| 020507 | 821940 | 2325 | 0.53 |
| 020508 | 821960 | 1391 | 0.48 |
| 020509 | 821980 | 1563 | 0.37 |
| 020512 | 822020 | 1358 | 0.85 |
| 020513 | 822040 | 1276 | 0.51 |
| 020514 | 822060 | 2323 | 1.26 |
| 020515 | 822080 | 1563 | 0.57 |
| 020517 | 822100 | 1358 | 0.7 |
| 020518 | 822120 | 2325 | 0.74 |
| 020519 | 822140 | 151904 | 0.29 |
| 020520 | 822160 | 1358 | 0.45 |
| 020521 | 822180 | 2325 | 0.48 |
| 020522 | 822200 | 1563 | 0.41 |
| 020524 | 822220 | 2325 | 0.28 |
| 020525 | 822240 | 2323 | 0.4 |
| 020527 | 822260 | 2553 | 1.0 |
| 020530 | 822300 | 1391 | 0.12 |
| 020531 | 822320 | 2342 | 0.64 |
| 020601 | 822340 | 1358 | 0.48 |
| 070302 | 470880 | 597905 | 0.54 |
| 070303 | 470900 | 2323 | 0.73 |
| 070305 | 470920 | 1358 | 0.44 |
| 070307 | 470940 | 658924 | 0.48 |
| 070308 | 470960 | 1911 | 0.32 |
| 070310 | 470980 | 658919 | 0.82 |
| 070311 | 471000 | 658919 | 0.99 |
| 070312 | 471020 | 1358 | 0.32 |
| 070314 | 471040 | 1921 | 1.21 |
| 070315 | 471060 | 658919 | 0.75 |
| 070316 | 471080 | 658924 | 0.65 |
| 070317 | 471100 | 2323 | <0,1 |
| 070318 | 471120 | 1358 | <0,2 |
| 070319 | 471140 | 6112 | <0,1 |
| 070321 | 471160 | 4311 | <0,1 |
| 070322 | 471180 | 6112 | <0,1 |
| 070324 | 471200 | 658919 | 0.95 |
| 070327 | 471220 | 1358 | <0,1 |
| 070328 | 471240 | 6216 | <0,1 |
| 070329 | 471260 | 1358 | <0,1 |
| 070330 | 471280 | 621701 | <0,1 |
| 070331 | 471300 | 2323 | <0,1 |
| 070401 | 471320 | 1358 | <0,1 |
| 070403 | 471340 | 2323 | <0,1 |
| 070404 | 471360 | 6216 | <0,1 |
| 070406 | 471380 | 1358 | 0.19 |
| 070407 | 471400 | 6112 | <0,1 |
| 070408 | 471420 | 658919 | 0.64 |
| 070410 | 471440 | 621701 | 1.2 |
| 070411 | 471460 | 2355 | <0,1 |
| 070413 | 471480 | 6216 | <0,1 |
| 070414 | 471500 | 1358 | <0,1 |
| 070415 | 471520 | 621701 | <0,1 |
| 070417 | 471540 | 1921 | <0,1 |
| 070418 | 471560 | 2395 | 0.12 |
| 070420 | 471580 | 658919 | <0,1 |
| 070421 | 471600 | 1358 | 0.17 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 020603 | 822360 | 2325 | 0.61 |
| 020604 | 822380 | 597905 | 1.31 |
| 020606 | 822400 | 2323 | 0.5 |
| 020607 | 822420 | 1391 | 0.61 |
| 020610 | 822460 | 1358 | 0.69 |
| 020610 | 822464 | 1818 | 1.06 |
| 020612 | 822480 | 2325 | 0.48 |
| 020614 | 822500 | 5857 | 1.16 |
| 020616 | 822520 | 2323 | 0.47 |
| 020617 | 822540 | 2342 | 0.41 |
| 020619 | 822560 | 1563 | 0.17 |
| 020621 | 822600 | 1358 | 0.45 |
| 020623 | 822620 | 658919 | 0.54 |
| 020624 | 822640 | 1358 | 0.55 |
| 020626 | 822660 | 2342 | 0.4 |
| 020627 | 822680 | 338908 | 0.49 |
| 020629 | 822700 | 1358 | 0.36 |
| 020630 | 822720 | 597905 | 0.82 |
| 020701 | 822740 | 3371 | 0.49 |
| 020702 | 822760 | 2323 | 0.58 |
| 020703 | 822780 | 2342 | 0.98 |
| 020704 | 822800 | 1396 | 0.4 |
| 020705 | 822820 | 1961 | 4.14 |
| 020707 | 822840 | 1358 | 0.37 |
| 020707 | 822860 | 1358 | 0.34 |
| 020709 | 822880 | 5857 | 1.15 |
| 020710 | 822900 | 1358 | 0.59 |
| 020711 | 822920 | 2325 | 0.53 |
| 020731 | 822940 | 1563 | 0.5 |
| 020803 | 822980 | 1358 | 0.38 |
| 020805 | 823000 | 1552 | 0.24 |
| 020807 | 823020 | 2325 | 0.21 |
| 020809 | 823040 | 2325 | <0,1 |
| 020812 | 823060 | 1358 | 0.45 |
| 020813 | 823080 | 1358 | 0.32 |
| 020815 | 823100 | 2325 | 1.18 |
| 020817 | 823120 | 3551 | 0.77 |
| 070422 | 471620 | 6112 | 0.42 |
| 070424 | 471640 | 621701 | 0.63 |
| 070425 | 471660 | 1358 | 0.69 |
| 070426 | 471680 | 6112 | 1.17 |
| 070428 | 471700 | 658919 | 0.1 |
| 070429 | 471720 | 1358 | 0.27 |
| 070430 | 471740 | 1358 | 0.25 |
| 070502 | 471760 | 6216 | 0.81 |
| 070503 | 471780 | 621701 | 0.96 |
| 070505 | 471800 | 2323 | <0,1 |
| 070506 | 471820 | 1358 | 0.23 |
| 070507 | 471840 | 658924 | 1.03 |
| 070509 | 471860 | 1921 | 0.34 |
| 070510 | 471880 | 1358 | 0.28 |
| 070512 | 471900 | 658919 | 0.51 |
| 070513 | 471920 | 621701 | 0.16 |
| 070516 | 471960 | 2395 | 0.25 |
| 070518 | 471980 | 621701 | 0.15 |
| 070519 | 472000 | 135801 | 0.24 |
| 070521 | 472020 | 658919 | <0,1 |
| 070522 | 472040 | 658924 | <0,1 |
| 070523 | 472060 | 1921 | 0.53 |
| 070524 | 472080 | 658919 | 0.64 |
| 070526 | 472100 | 2323 | 0.36 |
| 070527 | 472120 | 6112 | 1.06 |
| 070528 | 472140 | 1358 | 0.2 |
| 070530 | 472160 | 194201 | 0.56 |
| 070531 | 472180 | 621701 | 0.45 |
| 070602 | 472200 | 6611 | <0,1 |
| 070603 | 472220 | 6112 | 0.39 |
| 070604 | 472240 | 1358 | <0,1 |
| 070607 | 472260 | 194201 | 0.51 |
| 070608 | 472280 | 5855 | 1.00 |
| 070609 | 472300 | 658919 | 0.34 |
| 070611 | 472320 | 6112 | 0.37 |
| 070613 | 472340 | 1356 | 0.53 |
| 070616 | 472380 | 1358 | <0,1 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 020818 | 823140 | 2325 | 0.9 |
| 020819 | 823160 | 194201 | 0.66 |
| 020821 | 823180 | 3393 | 1.56 |
| 020822 | 823200 | 1563 | 0.14 |
| 020823 | 823220 | 2341 | 1 |
| 020825 | 823240 | 1961 | 2.08 |
| 020826 | 823260 | 2323 | 0.46 |
| 020827 | 823280 | 1358 | 0.75 |
| 020829 | 823300 | 1358 | 0.58 |
| 020830 | 823320 | 338908 | 0.5 |
| 020901 | 823340 | 1335 | 0.43 |
| 020903 | 823360 | 5855 | 1.95 |
| 020904 | 823380 | 2325 | 0.46 |
| 020906 | 823400 | 3383 | 0.68 |
| 020908 | 823440 | 2393 | 0.35 |
| 020910 | 823460 | 722401 | 0.23 |
| 020911 | 823480 | 658919 | 0.66 |
| 020912 | 823500 | 658919 | 0.69 |
| 020913 | 823520 | 1563 | 0.33 |
| 020916 | 823560 | 2553 | 0.28 |
| 020917 | 823580 | 1358 | 0.35 |
| 020920 | 823620 | 1358 | 0.52 |
| 020921 | 823640 | 1276 | 0.22 |
| 020923 | 823660 | 191601 | 1.19 |
| 020924 | 823680 | 1358 | 0.7 |
| 020925 | 823700 | 2546 | 0.5 |
| 020927 | 823720 | 1552 | 0.45 |
| 020928 | 823740 | 1593 | 0.36 |
| 020930 | 823760 | 2325 | 0.49 |
| 021001 | 823780 | 1961 | 1.14 |
| 021003 | 823820 | 1537 | 0.67 |
| 021006 | 823860 | 597905 | 1.00 |
| 021010 | 823920 | 1513 | 0.33 |
| 021012 | 823940 | 2325 | 0.85 |
| 021013 | 823960 | 1358 | 0.54 |
| 021015 | 824000 | 1357 | 0.8 |
| 021017 | 824020 | 1563 | 0.65 |
| 070617 | 472400 | 1358 | <0,1 |
| 070618 | 472420 | 1276 | <0,1 |
| 070620 | 472440 | 1961 | 0.58 |
| 070623 | 472460 | 6112 | 0.69 |
| 070625 | 472480 | 6112 | 0.39 |
| 070626 | 472500 | 1358 | 0.3 |
| 070628 | 472520 | 1276 | 0.16 |
| 070630 | 472540 | 1358 | <0,1 |
| 070702 | 472560 | 658924 | 0.26 |
| 070703 | 472580 | 6611 | 0.23 |
| 070705 | 472600 | 722601 | <0,1 |
| 070706 | 472620 | 621701 | 0.39 |
| 070708 | 472640 | 6112 | <0,1 |
| 070709 | 472660 | 621701 | 0.51 |
| 070710 | 472680 | 1358 | 0.22 |
| 070712 | 472700 | 1276 | 0.26 |
| 070730 | 472720 | 1358 | <0,1 |
| 070801 | 472740 | 2546 | <0,1 |
| 070802 | 472760 | 2323 | <0,1 |
| 070804 | 472780 | 3393 | <0,1 |
| 070807 | 472820 | 658919 | 0.43 |
| 070808 | 472840 | 1358 | 0.16 |
| 070810 | 472860 | 5857 | 1.13 |
| 070814 | 472880 | 658919 | 0.41 |
| 070814 | 972880 | 658919 | |
| 070815 | 472900 | 1358 | 0.4 |
| 070817 | 472920 | 3393 | 0.15 |
| 070818 | 472940 | 1325 | 0.13 |
| 070819 | 472960 | 1276 | 0.23 |
| 070821 | 472980 | 621701 | 0.44 |
| 070822 | 473000 | 658924 | 0.62 |
| 070824 | 473020 | 658924 | 0.27 |
| 070826 | 473040 | 1416 | <0,1 |
| 070828 | 473060 | 6112 | 0.61 |
| 070830 | 473080 | 658924 | 0.43 |
| 070831 | 473100 | 1325 | 0.2 |
| 070902 | 473120 | 2323 | 0.17 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 021018 | 824040 | 3393 | 0.14 |
| 021020 | 824060 | 1352 | 0.15 |
| 021024 | 824120 | 2325 | 0.38 |
| 021025 | 824140 | 2395 | 0.65 |
| 021026 | 824160 | 2546 | 0.17 |
| 021028 | 824180 | 1358 | <0,1 |
| 021029 | 824200 | 1391 | 0.82 |
| 021030 | 824220 | 658919 | 0.82 |
| 021031 | 824240 | 1358 | 0.48 |
| 021102 | 824260 | 6211 | 0.23 |
| 021103 | 824280 | 2323 | 0.38 |
| 021105 | 824320 | 2341 | 0.28 |
| 021107 | 824340 | 5857 | 0.56 |
| 021108 | 824360 | 1358 | 0.22 |
| 021109 | 824380 | 1358 | <0,1 |
| 021112 | 824420 | 1356 | 0.49 |
| 021113 | 824440 | 1358 | 0.33 |
| 021114 | 824460 | 1358 | 0.27 |
| 021115 | 824480 | 2325 | <0,1 |
| 021116 | 824500 | 3393 | 0.87 |
| 021119 | 824540 | 7315 | <0,1 |
| 021120 | 824560 | 2325 | 0.22 |
| 021121 | 824580 | 1358 | 0.17 |
| 021123 | 824600 | 658919 | <0,1 |
| 021128 | 824680 | 1358 | <0,1 |
| 021129 | 824700 | 2395 | 0.16 |
| 021130 | 824720 | 2325 | <0,1 |
| 021201 | 824740 | 1358 | <0,1 |
| 021203 | 824780 | 1391 | 0.25 |
| 021206 | 824820 | 194201 | 0.87 |
| 021209 | 824860 | 1358 | 0.16 |
| 021210 | 824880 | 1357 | 0.3 |
| 021211 | 824900 | 1358 | 0.66 |
| 021212 | 824920 | 2325 | 0.25 |
| 021213 | 824940 | 1358 | 0.36 |
| 021214 | 824960 | 334204 | 0.52 |
| 021215 | 824980 | 1358 | 0.25 |

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 070903 | 473140 | 6112 | <0,1 |
| 070904 | 473160 | 621701 | 0.3 |
| 070906 | 473180 | 658919 | 0.17 |
| 070907 | 473200 | 722401 | 0.3 |
| 070909 | 473220 | 1921 | <0,1 |
| 070910 | 473240 | 658924 | 0.18 |
| 070912 | 473260 | 6112 | 0.26 |
| '070913 | 473280 | 1358 | 0.18 |
| 070914 | 473300 | 2323 | <0,1 |
| 070916 | 473320 | 2355 | <0,1 |
| 070918 | 473340 | 6112 | 0.27 |
| 070919 | 473360 | 1593 | 0.11 |
| 070921 | 473380 | 1358 | 0.12 |
| 070922 | 473400 | 6112 | 0.58 |
| 070924 | 473420 | 1552 | 0.1 |
| 070925 | 473440 | 597905 | 0.43 |
| 070927 | 473460 | 1358 | 0.11 |
| 070928 | 473480 | 658924 | 0.48 |
| 070930 | 473500 | 231920 | 0.13 |
| 071002 | 473520 | 6112 | 0.23 |
| 071003 | 473540 | 1358 | <0,1 |
| 071005 | 473560 | 1358 | 0.16 |
| 071006 | 473580 | 1358 | 0.59 |
| 071008 | 473600 | 1358 | 0.21 |
| 071009 | 473620 | 658919 | 0.35 |
| 071010 | 473640 | 658919 | 0.45 |
| 071011 | 473660 | 1358 | 0.16 |
| 071013 | 473680 | 1358 | <0,1 |
| 071014 | 473700 | 6112 | 0.19 |
| 071015 | 473720 | 1358 | <0,1 |
| 071017 | 473740 | 1358 | 0.11 |
| 071018 | 473760 | 1358 | 0.14 |
| 071019 | 473780 | 658924 | 0.87 |
| 071021 | 473800 | 1358 | <0,1 |
| 071022 | 473820 | 1358 | <0,1 |
| 071023 | 473840 | 658924 | 0.71 |
| 071024 | 473860 | 2323 | 0.11 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 021217 | 825000 | 2546 | 0.15 |
| 021217 | 825004 | 1818 | 1.04 |
| 021218 | 825020 | 2323 | 0.49 |
| 021220 | 825040 | 1358 | 0.19 |
| 021221 | 825060 | 2342 | 0.18 |
| 021222 | 825080 | 2542 | 0.17 |
| 021223 | 825100 | 1563 | 0.25 |
| 021225 | 825120 | 1325 | 0.19 |
| 021226 | 825140 | 1335 | 0.25 |
| 021228 | 825160 | 1358 | 0.38 |
| 021230 | 825200 | 1358 | 0.13 |
| 021231 | 825220 | 2342 | 0.11 |
| **2003** | | | |
| 030102 | 830020 | 1358 | 0.24 |
| 030103 | 830040 | 2325 | 0.37 |
| 030104 | 830060 | 1358 | 0.22 |
| 030107 | 830100 | 1537 | 0.22 |
| 030108 | 830120 | 1563 | 0.55 |
| 030109 | 830140 | 2323 | 0.23 |
| 030110 | 830160 | 194201 | 0.66 |
| 030112 | 830180 | 2325 | 0.23 |
| 030113 | 830200 | 2323 | 0.25 |
| 030115 | 830240 | 2323 | 0.3 |
| 030117 | 830260 | 2325 | 0.48 |
| 030121 | 830320 | 2341 | 0.33 |
| 030121 | 830340 | 1358 | 0.42 |
| 030123 | 830360 | 1358 | 0.62 |
| 030125 | 830380 | 658919 | 0.45 |
| 030126 | 830400 | 1358 | <0,1 |
| 030127 | 830420 | 3383 | 0.45 |
| 030128 | 830440 | 722401 | <0,1 |
| 030129 | 830460 | 1358 | <0,1 |
| 030131 | 830480 | 1358 | <0,1 |
| 030201 | 830500 | 1913 | <0,1 |
| 030202 | 830520 | 1358 | <0,1 |
| 030203 | 830540 | 3383 | <0,1 |
| 071026 | 473880 | 658924 | 0.85 |
| 071028 | 473920 | 658924 | 0.5 |
| 071030 | 473940 | 621701 | 0.36 |
| 071102 | 473980 | 658919 | 0.55 |
| 071103 | 474000 | 1358 | 0.29 |
| 071104 | 474020 | 1358 | <0,1 |
| 071106 | 474040 | 621701 | 0.28 |
| 071108 | 474060 | 1358 | 0.15 |
| 071109 | 474080 | 2323 | 0.11 |
| 071111 | 474100 | 2323 | <0,1 |
| 071112 | 474120 | 1961 | 0.22 |
| 071113 | 474140 | 2323 | 0.13 |
| 071117 | 474180 | 663002 | 0.34 |
| 071118 | 474200 | 1358 | 0.14 |
| 071119 | 474215 | 181902 | 0.83 |
| 071119 | 474220 | 6112 | 0.42 |
| 071121 | 474240 | 621701 | 0.73 |
| 071122 | 474260 | 1358 | 0.13 |
| 071125 | 474300 | 1358 | <0,1 |
| 071126 | 474320 | 5855 | 1.55 |
| 071128 | 474340 | 621701 | 0.33 |
| 071129 | 474360 | 1358 | <0,1 |
| 071201 | 474380 | 2323 | 0.17 |
| 071202 | 474400 | 658919 | 0.45 |
| 071203 | 474420 | 1358 | <0,1 |
| 071206 | 474440 | 1358 | 0.36 |
| 071207 | 474460 | 5855 | 1.9 |
| 071208 | 474480 | 1358 | 0.13 |
| 071210 | 474500 | 658919 | 1.19 |
| 071211 | 474520 | 127948 | 0.24 |
| 071214 | 474540 | 621701 | 0.2 |
| 071215 | 474560 | 1358 | 0.22 |
| 071217 | 474580 | 663002 | 0.3 |
| 071218 | 474600 | 6112 | 0.33 |
| 071220 | 474620 | 658919 | 0.43 |
| 071221 | 474640 | 6112 | 0.47 |
| 071222 | 474660 | 1358 | 0.23 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 030204 | 830560 | 2323 | <0,1 |
| 030206 | 830580 | 194201 | 0.59 |
| 030208 | 830620 | 2323 | <0,1 |
| 030209 | 830640 | 2323 | 0.17 |
| 030210 | 830660 | 1358 | <0,1 |
| 030211 | 830680 | 597905 | 0.83 |
| 030213 | 830700 | 2323 | 0.26 |
| 030214 | 830720 | 1358 | <0,1 |
| 030215 | 830740 | 1358 | 0.11 |
| 030216 | 830760 | 1358 | 0.15 |
| 030217 | 830780 | 1358 | 0.25 |
| 030219 | 830800 | 1358 | <0,1 |
| 030220 | 830820 | 1358 | <0,1 |
| 030221 | 830840 | 2342 | <0,1 |
| 030222 | 830860 | 2323 | 0.17 |
| 030223 | 830880 | 1358 | <0,1 |
| 030224 | 830900 | 1358 | <0,1 |
| 030302 | 830940 | 2546 | <0,1 |
| 030303 | 830960 | 658919 | 0.43 |
| 030304 | 830980 | 1358 | <0,1 |
| 030305 | 831000 | 2395 | 0.36 |
| 030308 | 831040 | 1563 | 0.33 |
| 030309 | 831060 | 1552 | 0.27 |
| 030310 | 831080 | 2323 | <0,1 |
| 030311 | 831100 | 1358 | <0,1 |
| 030312 | 831120 | 1358 | <0,1 |
| 030315 | 831160 | 1918 | 0.6 |
| 030316 | 831180 | 1358 | 0.19 |
| 030317 | 831200 | 194201 | 0.24 |
| 030319 | 831220 | 6216 | 0.46 |
| 030320 | 831240 | 2323 | <0,1 |
| 030321 | 831260 | 1358 | 0.34 |
| 030322 | 831280 | 1552 | 0.14 |
| 030323 | 831300 | 2323 | <0,10 |
| 030325 | 831320 | 658919 | 0.4 |
| 030326 | 831340 | 1358 | <0,1 |
| 030328 | 831380 | 1357 | 0.15 |
| 071223 | 474680 | 1358 | 0.45 |
| 071224 | 474700 | 1358 | 0.4 |
| 071226 | 474720 | 621701 | 0.74 |
| 071227 | 474740 | 621701 | 0.8 |
| 071228 | 474760 | 2323 | 0.61 |
| 070130 | 474780 | 194201 | 0.51 |
| 071231 | 474800 | 6112 | 0.66 |
| **2008** | | | |
| 080103 | 480040 | 621701 | 0.86 |
| 080104 | 480060 | 1358 | 0.35 |
| 080105 | 480080 | 2323 | 0.21 |
| 080107 | 480100 | 6112 | 0.25 |
| 080108 | 480120 | 597905 | 0.67 |
| 080109 | 480140 | 1358 | <0,1 |
| 080111 | 480160 | 135801 | 0.11 |
| 080112 | 480180 | 1358 | <0,1 |
| 080114 | 480200 | 1358 | 0.16 |
| 080115 | 480220 | 6112 | 0.5 |
| 080116 | 480240 | 2323 | 0.37 |
| 080118 | 480260 | 6112 | 0.27 |
| 080119 | 480280 | 1358 | <0,1 |
| 080120 | 480300 | 6112 | 0.37 |
| 080121 | 480320 | 6112 | 0.52 |
| 080123 | 480340 | 6112 | 0.54 |
| 080124 | 480360 | 1961 | 0.87 |
| 080126 | 480380 | 658919 | 0.32 |
| 080127 | 480400 | 597905 | 0.75 |
| 080128 | 480420 | 658919 | 0.53 |
| 080129 | 480429 | 181902 | 0.96 |
| 080130 | 480440 | 194201 | 0.46 |
| 080201 | 480460 | 1918 | 0.11 |
| 080202 | 480480 | 658919 | 0.52 |
| 080203 | 480500 | 6112 | 0.42 |
| 080206 | 480520 | 6216 | 0.7 |
| 080209 | 480560 | 6112 | 0.86 |
| 080210 | 480580 | 6112 | 0.63 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 030329 | 831400 | 1358 | <0,1 |
| 030330 | 831420 | 2323 | 0.27 |
| 030331 | 831440 | 5416 | 0.78 |
| 030401 | 831460 | 1358 | 0.27 |
| 030402 | 831480 | 1358 | 0.76 |
| 030404 | 831500 | 3393 | 0.48 |
| 030405 | 831520 | 1358 | 0.26 |
| 030407 | 831540 | 1911 | 0.35 |
| 030408 | 831560 | 1358 | 0.37 |
| 030409 | 831580 | 1358 | <0,1 |
| 030411 | 831600 | 2323 | <0,1 |
| 030414 | 831640 | 1358 | <0,1 |
| 030415 | 831660 | 2323 | 0.26 |
| 030415 | 831669 | 1818 | 1.58 |
| 030416 | 831680 | 597905 | 1.72 |
| 030417 | 831700 | 1358 | 0.14 |
| 030419 | 831720 | 2342 | 0.2 |
| 030420 | 831740 | 1358 | 0.44 |
| 030422 | 831780 | 5992 | 2.36 |
| 030426 | 831820 | 2342 | <0,1 |
| 030428 | 831840 | 597905 | 0.62 |
| 030429 | 831860 | 1358 | <0,1 |
| 030430 | 831880 | 2323 | 0.45 |
| 030503 | 831920 | 2323 | 0.11 |
| 030504 | 831940 | 2323 | <0,1 |
| 030505 | 831960 | 1563 | 0.12 |
| 030507 | 831980 | 658919 | 0.6 |
| 030509 | 832000 | 1358 | 0.37 |
| 030510 | 832020 | 2323 | <0,1 |
| 030511 | 832040 | 2341 | 0.25 |
| 030513 | 832060 | 2323 | <0,1 |
| 030514 | 832080 | 1358 | <0,1 |
| 030518 | 832160 | 194201 | 0.56 |
| 030520 | 832180 | 135801 | 0.11 |
| 030521 | 832200 | 1358 | 0.53 |
| 030522 | 832220 | 2323 | 0.34 |
| 030524 | 832240 | 1563 | 0.11 |
| 080213 | 480620 | 194201 | 0.47 |
| 080214 | 480640 | 1276 | <0,1 |
| 080215 | 480660 | 1358 | <0,1 |
| 080218 | 480700 | 597905 | 1.48 |
| 080219 | 480720 | 2323 | <0,1 |
| 080223 | 480760 | 597905 | 1.07 |
| 080224 | 480780 | 658926 | 0.91 |
| 080226 | 480800 | 2323 | <0,1 |
| 080227 | 480820 | 3383 | <0,1 |
| 080228 | 480840 | 2546 | 0.13 |
| 080301 | 480860 | 1358 | 0.23 |
| 080302 | 480880 | 658924 | 0.55 |
| 080303 | 480900 | 1358 | 0.37 |
| 080306 | 480940 | 127933 | 0.27 |
| 080308 | 480960 | 658919 | 0.88 |
| 080309 | 480980 | 1358 | 0.12 |
| 080310 | 481000 | 2537 | 0.43 |
| 080312 | 481020 | 2323 | <0,1 |
| 080313 | 481040 | 1358 | 0.13 |
| 080314 | 481060 | 1276 | 0.3 |
| 080316 | 481080 | 1358 | 0.26 |
| 080318 | 481100 | 658919 | 0.31 |
| 080319 | 481120 | 1358 | 0.27 |
| 080321 | 481140 | 658919 | 0.23 |
| 080322 | 481160 | 6631 | 0.4 |
| 080323 | 481180 | 1358 | 0.16 |
| 080324 | 481200 | 658924 | 0.6 |
| 080326 | 481220 | 3383 | 0.17 |
| 080327 | 481240 | 6992 | <0,10 |
| 080328 | 481260 | 2323 | 0.32 |
| 080330 | 481280 | 1358 | 0.24 |
| 080403 | 481320 | 127933 | <0,10 |
| 080405 | 481340 | 1358 | <0,10 |
| 080606 | 481360 | 1358 | 0.13 |
| 080409 | 481390 | 181902 | 1.23 |
| 080409 | 481400 | 6216 | 0.54 |
| 080411 | 481420 | 658924 | 0.75 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 030525 | 832260 | 135901 | 0.35 |
| 030526 | 832280 | 1358 | 0.33 |
| 030528 | 832300 | 2323 | 0.72 |
| 030529 | 832320 | 1357 | 0.33 |
| 030530 | 832340 | 1513 | 0.7 |
| 030531 | 832360 | 1961 | 0.95 |
| 030602 | 832380 | 658919 | 0.21 |
| 030603 | 832400 | 1358 | 0.3 |
| 030605 | 832420 | 2553 | 0.54 |
| 030607 | 832440 | 658919 | 0.41 |
| 030608 | 832460 | 1563 | 0.23 |
| 030610 | 832480 | 127933 | 0.24 |
| 030610 | 832489 | 1818 | 0.81 |
| 030611 | 832500 | 1358 | 0.37 |
| 030613 | 832520 | 2323 | 0.27 |
| 030614 | 832540 | 1358 | 0.33 |
| 030615 | 832560 | 1357 | 0.43 |
| 030616 | 832580 | 2355 | 0.31 |
| 030618 | 832600 | 2325 | 0.71 |
| 030619 | 832620 | 1358 | 0.25 |
| 030620 | 832640 | 3393 | 0.33 |
| 030622 | 832660 | 1921 | 0.16 |
| 030623 | 832680 | 2342 | 0.61 |
| 030624 | 832700 | 2546 | 0.35 |
| 030627 | 832720 | 6617 | 0.34 |
| 030628 | 832740 | 2323 | 0.37 |
| 030630 | 832760 | 1358 | 0.21 |
| 030702 | 832780 | 2323 | <0,1 |
| 030703 | 832800 | 1563 | <0,1 |
| 030705 | 832820 | 3393 | 0.34 |
| 030706 | 832840 | 1358 | 0.26 |
| 030707 | 832860 | 2323 | <0,1 |
| 030709 | 832900 | 1416 | 0.58 |
| 030710 | 832920 | 3342 | <0,1 |
| 030731 | 832940 | 1358 | 0.4 |
| 030802 | 832960 | 658919 | 0.49 |
| 030806 | 833000 | 1358 | 0.34 |
| 080412 | 481440 | 1358 | 0.42 |
| 080413 | 481460 | 1358 | 0.31 |
| 080414 | 481480 | 1358 | 0.18 |
| 080416 | 481500 | 2323 | 0.24 |
| 080418 | 481520 | 6112 | 0.46 |
| 080419 | 481540 | 1358 | <0,1 |
| 080420 | 481560 | 1358 | 0.2 |
| 080422 | 481580 | 621701 | 0.54 |
| 080423 | 481600 | 194201 | 0.49 |
| 080424 | 481620 | 1358 | 0.16 |
| 080426 | 481640 | 2323 | <0,1 |
| 080427 | 481660 | 1358 | <0,1 |
| 080428 | 481680 | 621701 | 0.53 |
| 080430 | 481700 | 1276 | <0,1 |
| 080502 | 481720 | 6112 | 0.12 |
| 080503 | 481740 | 2323 | 0.16 |
| 080504 | 481760 | 658919 | 0.29 |
| 080505 | 481780 | 194201 | 0.9 |
| 080506 | 481800 | 6112 | 0.33 |
| 080508 | 481820 | 2323 | <0,1 |
| 080509 | 481840 | 1358 | <0,1 |
| 080511 | 481860 | 1358 | <0,1 |
| 080513 | 481880 | 191903 | 1.67 |
| 080514 | 481900 | 5855 | 1.07 |
| 080516 | 481920 | 1358 | 0.46 |
| 080518 | 481940 | 2872 | 1.52 |
| 080519 | 481960 | 6112 | 0.4 |
| 080520 | 481980 | 658919 | 0.52 |
| 080522 | 482000 | 1358 | 0.16 |
| 080523 | 482020 | 1911 | 0.2 |
| 080525 | 482040 | 658924 | 0.17 |
| 080526 | 482060 | 658919 | 0.39 |
| 080528 | 482080 | 658919 | 0.31 |
| 080529 | 482100 | 1358 | 0.2 |
| 080531 | 482120 | 1921 | 0.15 |
| 080603 | 482160 | 621701 | 0.21 |
| 080604 | 482180 | 658919 | 0.2 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 030808 | 833020 | 658919 | 0.3 |
| 030812 | 833040 | 2323 | <0,1 |
| 030813 | 833060 | 3393 | 0.36 |
| 030815 | 933080 | 2323 | 0.11 |
| 030816 | 833100 | 1358 | 0.19 |
| 030817 | 833120 | 597905 | 1.32 |
| 030821 | 833160 | 127933 | 0.21 |
| 030822 | 833165 | 181902 | 0.11 |
| 030823 | 833180 | 1358 | 0.28 |
| 030824 | 833200 | 3393 | 0.8 |
| 030825 | 833220 | 2323 | 0.13 |
| 030826 | 833226 | 1818 | 1.55 |
| 030828 | 833260 | 1921 | 0.17 |
| 030830 | 833280 | 2323 | 0.22 |
| 030831 | 833300 | 1358 | 0.21 |
| 030901 | 833320 | 431910 | 0.18 |
| 030902 | 833340 | 1961 | 1.06 |
| 030904 | 833360 | 231921 | 0.19 |
| 030906 | 833380 | 2553 | 0.16 |
| 030909 | 833440 | 2325 | 0.41 |
| 030910 | 833460 | 2323 | 0.52 |
| 030912 | 833480 | 2546 | 0.97 |
| 030913 | 833500 | 2323 | 0.27 |
| 030914 | 833520 | 1358 | 0.2 |
| 030916 | 833540 | 2323 | 0.22 |
| 030919 | 833580 | 2546 | 2.33 |
| 030921 | 833600 | 1358 | 0.23 |
| 030921 | 833620 | 2323 | 0.26 |
| 030922 | 833640 | 5855 | 2.63 |
| 030924 | 833660 | 334205 | 2.06 |
| 030925 | 833680 | 1563 | <0,1 |
| 030927 | 833700 | 1358 | 0.13 |
| 030928 | 833720 | 2323 | 0.11 |
| 031001 | 833760 | 1358 | 0.31 |
| 031004 | 833780 | 597905 | 3.58 |
| 031005 | 833800 | 2323 | <0,1 |
| 031006 | 833820 | 2395 | 0.97 |
| 080606 | 482200 | 1358 | 0.16 |
| 080608 | 482220 | 1358 | 0.23 |
| 080608 | 482224 | 181902 | 0.63 |
| 080610 | 482240 | 621701 | 0.38 |
| 080611 | 482260 | 6112 | 0.34 |
| 080613 | 482280 | 2323 | 0.27 |
| 080614 | 482300 | 2395 | 0.2 |
| 080615 | 482320 | 1913 | 0.2 |
| 080617 | 482340 | 5855 | 1.37 |
| 080619 | 482380 | 1358 | 0.41 |
| 080620 | 482400 | 1358 | 0.48 |
| 080622 | 482420 | 658919 | 0.75 |
| 080624 | 482440 | 6112 | 0.77 |
| 080625 | 482460 | 1358 | 0.2 |
| 080627 | 482480 | 1358 | 0.3 |
| 080628 | 482500 | 1358 | 0.25 |
| 080701 | 482520 | 658924 | 0.85 |
| 080703 | 482540 | 658919 | 0.32 |
| 080704 | 482560 | 1358 | <0,1 |
| 080705 | 482580 | 1358 | <0,1 |
| 080706 | 482586 | 181902 | 0.81 |
| 080707 | 482600 | 6216 | 0.93 |
| 080708 | 482620 | 6112 | 0.44 |
| 080729 | 482660 | 2546 | 0.43 |
| 080730 | 482680 | 2323 | 0.2 |
| 080802 | 482720 | 1961 | 0.5 |
| 080803 | 482740 | 1358 | 0.36 |
| 080805 | 482760 | 621701 | 0.73 |
| 080806 | 482780 | 2323 | 0.2 |
| 080807 | 482800 | 1358 | 0.19 |
| 080811 | 482820 | 2323 | 0.1 |
| 080812 | 482840 | 194201 | 0.26 |
| 080814 | 482860 | 1358 | <0,1 |
| 080815 | 482880 | 6112 | 0.54 |
| 080816 | 482900 | 3393 | 0.55 |
| 080818 | 482920 | 2323 | <0,1 |
| 080819 | 482940 | 194201 | 0.63 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm | DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|---|---|---|---|
| 031007 | 833831 | 1818 | 1.13 | 080823 | 482980 | 658919 | 0.48 |
| 031008 | 833840 | 2542 | 0.13 | 080824 | 483000 | 597905 | 0.51 |
| 031009 | 833860 | 1358 | <0.2 | 080825 | 483020 | 6112 | <0,1 |
| 031011 | 833880 | 1921 | 0.12 | 080826 | 483040 | 1961 | 0.42 |
| 031013 | 833900 | 2323 | 0,6/0,57* | 080828 | 483060 | 2323 | 1.34 |
| 031014 | 833920 | 1358 | <0.2 | 080830 | 483080 | 621701 | 0.32 |
| 031018 | 833960 | 1358 | <0.2 | 080901 | 483120 | 1358 | <0,1 |
| 031024 | 834040 | 1358 | <0.2 | 080903 | 483140 | 621701 | 0.75 |
| 031025 | 834060 | 2341 | 0,8/0,95* | 080905 | 483160 | 1358 | <0,1 |
| 031025 | 834066 | 181902 | 0.6 | 080906 | 483180 | 2553 | <0,1 |
| 031027 | 834100 | 1961 | 1.88 | 080908 | 483200 | 658927 | 0.1 |
| 031028 | 834120 | 658919 | 1.05 | 080909 | 483220 | 1358 | <0,1 |
| 031031 | 834160 | 1552 | 0.21 | 080910 | 483240 | 621701 | 0.14 |
| 031102 | 834180 | 2323 | 0.29 | 080911 | 483260 | 1563 | <0,1 |
| 031103 | 834200 | 1358 | 0.31 | 080913 | 483280 | 127933 | <0,1 |
| 031105 | 834220 | 6216 | 0.95 | 080915 | 483300 | 658927 | 0.43 |
| 031106 | 834240 | 231920 | 0.95 | 080916 | 483320 | 1358 | <0,1 |
| 031108 | 834260 | 1556 | 0.24 | 080917 | 483340 | 1358 | <0,1 |
| 031109 | 834280 | 1961 | 1.64 | 080918 | 483360 | 1358 | <0,1 |
| 031110 | 834300 | 3412 | 0.77 | 080920 | 483380 | 127933 | <0,1 |
| 031111 | 834320 | 2323 | 0.48 | 080923 | 483420 | 6112 | 0.26 |
| 031114 | 834360 | 1358 | 0.47 | 080924 | 483440 | 1358 | <0,1 |
| 031115 | 834380 | 2323 | 0.59 | 080926 | 483460 | 1358 | <0,1 |
| 031116 | 834400 | 1358 | 0.52 | 080927 | 483480 | 1358 | <0,1 |
| 031119 | 834440 | 1552 | 0.34 | 080929 | 483500 | 131977 | <0,1 |
| 031121 | 834460 | 2323 | 0.73 | 080930 | 483520 | 1911 | <0,1 |
| 031122 | 834480 | 1358 | 0.59 | 081001 | 483540 | 3393 | 0.34 |
| 031123 | 834500 | 658919 | 0.94 | 081003 | 483560 | 2355 | <0,1 |
| 031124 | 834520 | 1358 | 0.31 | 081004 | 483580 | 6112 | 0.49 |
| 031126 | 834540 | 597905 | 0.68 | 081006 | 483600 | 658919 | <0,1 |
| 031129 | 834560 | 1358 | 0.41 | 081009 | 483640 | 1276 | <0,1 |
| 031130 | 834580 | 231921 | 0.44 | 081010 | 483660 | 1358 | <0,1 |
| 031203 | 834620 | 1358 | 0.33 | 081011 | 483680 | 1961 | <0,1 |
| 031204 | 834640 | 1961 | 1.98 | 081014 | 483720 | 1358 | <0,1 |
| 031206 | 834660 | 1358 | 0.34 | 081015 | 483740 | 2323 | <0,1 |
| 031207 | 834680 | 1358 | 0.42 | 081017 | 483760 | 658919 | 0.67 |
| 031208 | 834700 | 1358 | 0.58 | 081019 | 483780 | 6112 | 0.53 |

## LEAD CONTENT OF REPRESENTATIVE STEELS SINCE 1998

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 031209 | 834720 | 1961 | 1.91 |
| 031210 | 834740 | 658919 | 1.08 |
| 031211 | 834760 | 1358 | 0.9 |
| 031212 | 834780 | 1358 | 0.57 |
| 031223 | 834820 | 127933 | 0.24 |
| 031224 | 834840 | 1537 | 0.26 |
| 031225 | 834860 | 658919 | 0.48 |
| 031229 | 834900 | 1358 | 0.32 |
| 031230 | 834920 | 2323 | 0.4 |
| 031231 | 834940 | 2323 | 0.31 |
| **2009** | | | |
| 090104 | 490020 | 6617 | 0.67 |
| 090108 | 490040 | 2553 | <0,1 |
| 090109 | 490060 | 1358 | <0,1 |
| 090113 | 490080 | 2323 | 0.12 |
| 090116 | 490120 | 2323 | 0.41 |
| 090117 | 490140 | 597905 | 0.84 |
| 090118 | 490160 | 1358 | 0.31 |
| 090120 | 490180 | 6112 | <0,1 |
| 090123 | 490220 | 658919 | 0.5 |
| 090128 | 490240 | 1358 | 0.1 |
| 090129 | 490260 | 6112 | 0.24 |
| 090131 | 490280 | 658919 | 0.31 |
| 090201 | 490300 | 1358 | 0.1 |
| 090202 | 490320 | 1358 | <0,1 |
| 090203 | 490340 | 1358 | 0.15 |
| 090205 | 490360 | 6992 | 0.57 |
| 090206 | 490380 | 163927 | <0,1 |

| DATE | HEAT # | GRADE Code | Pb ppm |
|---|---|---|---|
| 081020 | 483800 | 1961 | 0.07 |
| 081022 | 483820 | 1961 | 0.31 |
| 081025 | 483840 | 621701 | 0.72 |
| 081027 | 483860 | 127933 | 0.6 |
| 081101 | 483880 | 1358 | 0.53 |
| 081102 | 483900 | 597905 | 0.58 |
| 081108 | 483940 | 1961 | 0.3 |
| 081110 | 483960 | 231920 | <0,1 |
| 081115 | 483980 | 621701 | 0.73 |
| 081116 | 484000 | 6216 | <0,1 |
| 081120 | 484020 | 2323 | 0.12 |
| 081122 | 484040 | 1358 | <0,1 |
| 081123 | 484060 | 3371 | <0,1 |
| 081129 | 484100 | 658927 | 0.85 |
| 081130 | 484120 | 131985 | 0.23 |
| 081205 | 484140 | 1358 | 0.18 |
| 081206 | 484160 | 194201 | <0,1 |
| 081209 | 484180 | 1358 | <0,1 |
| 081215 | 484200 | 231920 | 0.49 |
| 081218 | 484240 | 2323 | 0.23 |
| 081220 | 484260 | 1358 | <0,1 |
| 081221 | 484280 | 658924 | 0.61 |
| 081223 | 484300 | 1358 | 0.12 |

## Stevenson, Todd

**From:** Green, Joseph J. [JGreen@KelleyDrye.com]
**Sent:** Friday, February 13, 2009 12:41 PM
**To:** Lead Determinations
**Subject:** Section 101 Determinations of Certain Materials or Products NPR (74 Fed. Reg. 2433) - Comments of the Specialty Steel Industry of North America
**Attachments:** CPSC Section 101 Determinations - SSINA Comments.pdf; TRACE-AOD-Praxair.pdf; TRACE-AOD-Whiting brochure.pdf; Lead Sampling Data.pdf

Attached please find comments submitted on behalf of the Specialty Steel Industry of North America. A letter detailing the comments and 3 accompanying attachments are included.

Please let us know if you have any questions.
Regards,

Joseph J. Green
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Washington, D.C. 20007
202.342.8849
Fax: 202.342.8451
www.kelleydrye.com
Counsel to the Specialty Steel Industry of North America

215

**Stevenson, Todd**

**From:** Pellegrini, John B. [jpellegrini@mcguirewoods.com]
**Sent:** Monday, February 16, 2009 5:33 PM
**To:** Lead Determinations
**Subject:** USA-ITA Comments
**Attachments:** USA-ITA Comments.pdf

Mr. Stevenson:

Please see the attached comments of USA-ITA.

Regards,

John B. Pellegrini

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UNITED STATES
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IMPORTERS OF
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NEW YORK, NY 10003
TELEPHONE: 212-463-0089
FAX :212-463-0583
www.usaita.com

February 16, 2009

Mr. Todd Stevenson
Office of the Secretary
U.S. Consumer Product Safety Commission
4330 East West Highway
Bethesda, MD 20814

Comments in Response to 1) Proposed Rulemaking, 74 Fed. Reg. 2433 (January 15, 2009), 2) Proposed Procedures and Requirements, 74 Fed. Reg. 2428 (January 15, 2009), and Proposed Interpretation, 74 Fed. Reg. 2439 (January 15, 2009)

Dear Mr. Stevenson:

The following comments are submitted by the United States Association of Importers of Textile and Apparel ("USA-ITA") and in response to the proposed rulemaking under Section 101 and in particular the identity of materials that inherently satisfy the lead content limits of Section 102(a) of the Consumer Product Safety Improvement Act of 2008 ("CPSIA"). USA-ITA also comments on the proposed procedures for considering exemptions under Section 101, and on the proposed interpretation of inaccessible components.

USA-ITA is a voluntary association of some 200 importers and retailers of textile products and wearing apparel as well as related service industries such as international transportation concerns. The importer and retailer members of USA-ITA import textile and apparel products with a first cost in excess of $60 billion.

1. Proposed determinations on certain natural, untreated and unadulterated materials

USA-ITA appreciates the Commission's preliminary determination that natural fibers inherently do not exceed the lead content limits established under the CPSIA, but respectfully urges the Commission to broaden its determination to all textiles, regardless of additional normal processing, as well as some accessory items.

Wearing apparel is produced with natural and manufactured materials that contain little or no lead or, if they do contain lead, it is in such a form that it will not be absorbed by child who might mouth or otherwise be exposed to the lead-containing material. These materials include; fabric (natural and man-made), yarns), thread, trim (lace, labels, elastics, etc.), metal (snaps, zippers) crystal and glass (as decorations), wood (buttons) and various form of plastic (buttons).

USA-ITA's interest lies primarily with the treatment of textile materials. This interest is addressed below. Apparel also contains the other materials mentioned above. The Commission has recognized that wood does not require testing. Some apparel will incorporate glass and crystal in the form of ornamentation. USA-ITA fully concurs with the submission filed by the Fashion Jewelry Trade Association ("FJTA") on February 2. That submission provides a

detailed, documented analysis of why lead in glass and crystal does not pose a danger to children. USA-ITA adopts the position taken in FJTA's submission. Other materials used in apparel such as plastic may require testing. USA-ITA does not address those materials here.

A January 22, 2009, meeting between Commission staff and members of the textile, apparel and retail industries addressed the level of lead in apparel. The industry participants presented independent laboratory tests demonstrating that a wide range of natural and man-made fabrics, trim and thread, including materials that were dyed as well as printed, do not present a risk. These independent laboratory tests established that while some textile materials incorporate lead, the levels are 100 ppm or less. The majority of the tests failed to detect any lead or found only trace amounts.

The Commission has recognized that natural fibers are inherently lead free and has proposed that they be exempt from lead testing requirements, at least when they have not been treated. USA-ITA assumes the term treatment means dyed and/or printed.

The Commission must go further and it has been presented with the best available objective scientific evidence to support a determination that both natural and processed fibers do not pose a risk. The process of creating man made fibers whether cellulosic or synthetic does not use lead and there are no conditions or circumstances that make it likely that lead would be introduced to the fibers in the course of manufacture.

Cellulosic fibers (rayon, acetate and lyocell) are produced using purified wood pulp. No lead-containing materials are used in that process. Synthetic fibers (e.g. polyester, nylon, acrylic) are produced with the use of polymers, which are synthesized from purified petrochemicals, none of which contain lead in any form. The petrochemical base is polarized in chemical processes that are closely monitored to ensure that there is no contamination by foreign materials (such as lead) that would have an adverse effect on the polarization process.

These fibers are used to make fabric, thread and other textile materials. Nothing in the process of turning fibers to yarn and then to fabric intentionally adds lead. The conversion of thread or yarns into fabric by weaving, knitting or other processes does not introduce lead. Lubricating oils are used but in all cases they consist of various organic compounds that do not contain lead.

Once in fabric, yarn or thread form, fibers usually are subject to preparation processes and dyeing. The preparation processes include procedures such as bleaching and scouring. In all cases inorganic compounds are used; again none of the chemicals used contain lead.

Fabric, yarn and thread often are colored with the use of dyes. The dyes are not lead based. Although some dyes contain lead, it is generally the case that lead-containing dyes are found in heavier fabrics for use as carpets, in automotive applications as drapes and in similar applications where color fastness requirements are more stringent than in apparel.

Some textile materials may contain small or trace amounts of lead, well below 600 or 300 ppm. However, even this is the exception rather than the rule. The Commission should recognize that the evidence provided on January 22 and in subsequent correspondence establishes that lead in

fabric used in apparel production is insignificant by any reasonable measure. The Commission has already proposed that natural fabrics be exempt from lead testing requirements. The Commission should expand this to include all textile materials.

USA-ITA therefore urges that the Commission exempt the materials described herein from lead testing requirements by including them under its proposed Section 1500.91, and not limiting subsection (c) of that proposed regulation to "natural materials."

2. Proposed procedures for a Commission determination or exclusion

USA-ITA appreciates the process that the Commission proposes to consider requests for exclusions of particular products and materials that exceed the lead limits, but which, based upon scientific evidence, will not result in absorption of lead into the body or have any other adverse impact on health or safety.

The Commission may exclude specific materials from the lead limits of Section 101 when it determines that any lead in the material will not result in the absorption of lead, taking into account normal and reasonably foreseeable use and abuse conditions, and otherwise will not have an adverse impact on public health or safety. The CPSIA recognizes that eliminating lead is not achievable, and that children might be exposed to lead in handling or mouthing products that meet total lead limits but in amounts that would not pose a health risk.

The CPSIA clearly contemplates that the Commission will exercise its authority to exclude materials that would not expose children to accessible lead in amounts that would create a health hazard.

While USA-ITA firmly believes that textile products should be recognized under the exemption regulation discussed in the first section of these comments, rather than the proposed process for exclusion, USA-ITA supports the proposed procedures for other inputs that may be included in apparel, such as rhinestone beads. Because the Commission has already been presented with substantial scientific evidence through the February 2 request by the FJTA et al., USA-ITA expects that the Commission can move expeditiously to make the necessary determinations that these non-textile inputs do not present a risk of absorption of lead into the body and do not create any other adverse impact on health or safety.

3. Proposed interpretative rule

The Commission seeks comments on whether fabric coverings could be used as a barrier that would render lead within the product inaccessible to a child. USA-ITA believes strongly that the answer is yes. A fabric covered button or a base of a zipper encased in fabric would be inaccessible to a child, through normal use and abuse. The fabric used for this purpose must withstand wear to remain whole throughout the life of the garment. A child could cut the fabric exposing the substrate but under proposed section 1500.87(g) the use of scissors or knives may not be a factor in assessing accessibility. In normal use and abuse these fabrics will not wear away to expose the button or zipper base.

Conclusion

USA-ITA appreciates the opportunity to comment on these important matters and urges that its views be adopted by the Commission.

Sincerely,

Laura E. Jones
Executive Director

Of counsel:

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216

Organic TRADE ASSOCIATION™

Kristina Hetlelid, Ph.D., MPH
Directorate for Health Sciences
Consumer Product Safety Commission
4330 East Wst Highway
Bethesda, MD 20814

February 17, 2009

**RE: Section 101(b) Exclusions**
To: Sec101Exclusions@cpsc.gov

VIA ELECTRONIC MAIL

OTA appreciates the opportunity to comment on the CPSC's notice of proposed procedures and requirements for Commission determinations that specific materials or products do not exceed the lead content limits. We also welcome the recent publication of the CPSC's "Guidance on the Consumer Product Safety Improvement Act (CPSIA) for Small Businesses, Resellers, Crafters and Charities," which clarifies that the Commission is considering exempting materials or components that include yarns and textiles, either dyed or undyed, from the testing requirement.

Our members are highly motivated by the concern for protecting children from exposure to toxic substances, and the increasing popularity of organically produced textile products is concentrated in infants' and childrens' clothing and bedding. The FTC has ruled that in order to label the fiber content of a textile product as "organic," it must be produced in compliance with the USDA National Organic Program (NOP) regulations.

However, neither the FTC nor the NOP covers textile processing or manufacturing methods, so neither recognizes the organic label on a textile product. OTA has helped to develop a textile processing standard for organic fiber products, now established as the voluntary program known as the Global Organic Textile Standard (GOTS)[1]. GOTS certification, like the NOP, requires third party verification and auditing of any operation that manufactures or handles products identified as "organic" under GOTS.

All dyes, auxiliaries, and other inputs and components used in a GOTS certified product must be free of heavy metals as defined by Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers (ETAD). The ETAD limit for lead is 100ppm. Accordingly, OTA requests that GOTS certified products, as well as component parts (e.g., fabrics, yarns) that are GOTS certified, be excluded from the CPSIA lead testing requirement.

[1] Please see www.global-standard.org for more information on GOTS.

OTA supports the approach of requiring that manufacturers of childrens' products obtain documentation that suppliers of component parts do not contain lead. We believe that third party verification and auditing of the manufacturing process for any product, including component parts, is sufficient to prevent the introduction of lead or other hazards into the content of the final product.

OTA urges the CPSC to allow the possibility of third-party certification of the *manufacturing process* in addition to third-party testing of component parts. The approach of process certification rather than product testing is a primary feature of organic label claims, and is successfully implemented throughout the world as, among other things, a means of preventing the introduction of prohibited substances into the supply chain.

Third-party certification or testing of component parts must be accompanied by a fully traceable audit trail to ensure that only those components with appropriate certification documentation are used to produce a given retail article. GOTS certification, like all organic and process-based certifications, requires operators to undergo annual audits to verify that their manufacturing processes and inputs are compliant with the standards.

Third party certification bodies should be accredited by a recognized accreditation body under ISO 65 (or ISO/IEC 17021:2006), and include periodic testing of a significant sample of product as part of the verification regime.

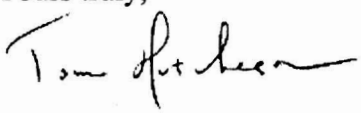
A fully traceable supply chain must be included with any third-party certification or testing procedure, such that the lot code identification and source of all components and inputs used in producing a finished textile product can be identified. Quality management systems must therefore be in place to establish the procedures necessary to document every transformation and movement of inputs, components, works in progress, and finished goods.

GOTS certification of organic textile products and component parts, such as dyed fabrics and yarns, should be sufficient to demonstrate that no lead-containing inputs have been used in their manufacture, and therefore considered equivalent to third-party testing. This is demonstrated by a well documented third party verification of the manufacturing and handling system, including a fully traceable audit trail that allows all inputs to be traced through the supply chain.

OTA appreciates the opportunity to provide input to this important rule making process, and we will be happy to respond to requests for additional information about organic textile manufacturing and GOTS certification.

Thank you very much for your consideration.

Yours truly,



Tom Hutcheson
Regulatory and Policy Manager

**Headquarters: PO Box 547, Greenfield, MA 01302 USA • (413) 774-7511 • fax: (413) 774-6432 • www.ota.com**
**Canada: PO Box 6364, Sackville, NB, Canada E4L 1G6**
**East (506) 260-7537 • West (250) 335-3423 • Ottawa (613) 482-1717**

## Stevenson, Todd

**From:** Tom Hutcheson [THutcheson@ota.com]
**Sent:** Tuesday, February 17, 2009 3:32 PM
**To:** Lead Exclusions
**Subject:** Section 101(b) Exclusions
**Attachments:** comment 02-17-09 leadexcl.doc

Dear Ms. Hatlelid,

Please find attached the comments of the Organic Trade Association.

--Tom Hutcheson
Regulatory and Policy Manager
Organic Trade Association
60 Wells Street 01302
P.O. Box 547
Greenfield, MA 01301
413-376-1214; fax 413-774-6432
thutcheson@ota.com; www.ota.com

217

**Stevenson, Todd**

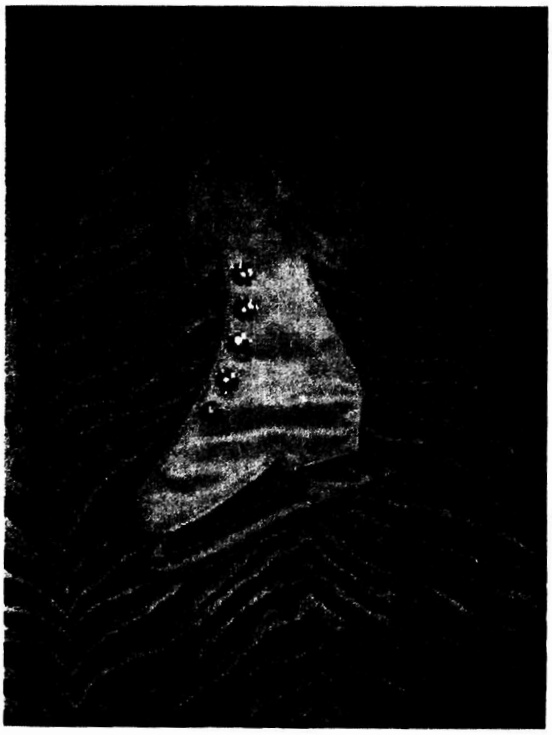
**From:** Bmaggard28@aol.com
**Sent:** Wednesday, February 18, 2009 3:29 AM
**To:** Lead Determinations; Hatlelid, Kristina
**Subject:** section 101 determinations of certain materials
**Attachments:** Picture%20421.jpg; Picture%20423.jpg; Picture%20426.jpg

I am a freelance children's clothing designer. I design embellished applique designs. I have questions about specific items I use the most. I am listing below the materials I use consistently every season. Could you please let me know if they are acceptable to use on children's clothing under the section 101 law. Thanks so much for your help.

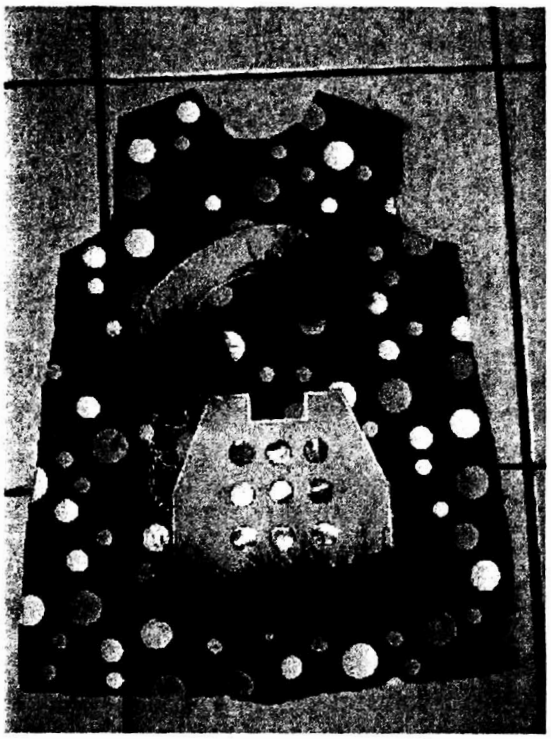
Feather boa
maraboa
crazy or googly eyes
jeweled buttons
hair gimp
silky fleece

I have included a picture of the type clothing I design. It is generally the simplest design, but what makes it so appealing to girls are the embellishment. I need to know if I will run into problems with the specific items I use. Thanks again!

feather boa and jewel buttons



maraboa and jewel buttons



beaded necklace and crazy eyes

*Becky Maggard*
Freelance Children's Clothing Design
Monogram & Embroidery

Wetumpka, Alabama
334-391-0182

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218

February 17, 2009

Mr. Todd Stevenson
Office of the Secretary
Consumer Product Safety Commission
Room 502
4330 East-West Highway,
Bethesda, Maryland, 20814

Via Email: *Sec101Determinations@cpsc.gov*

Dear Mr. Stevenson:

We the following companies request that the Consumer Product Safety Commission (CPSC), following its proposed rulemaking, confirms its intention to exclude unembellished dyed or undyed textiles from the lead testing regime established by Section 101 of the CPSIA. It has been amply demonstrated, and particularly here in the case of legwear products, that negligible levels of lead exist in our products. Moreover, in fact, we have demonstrated that it would be almost technically impossible to construct a "leaded" product.

We were pleased to participate in the CPSC hearing on January 22, 2009 to discuss lead content of apparel and its treatment under the Consumer Product Safety Improvement Act (CPSIA). As Dan St. Louis of the Hosiery Technology Center (HTC) - an independent laboratory associated with the Catawba Valley Community College – explained, the HTC has been searching for lead in textile fibers, waxes, oils, dyes and finishing chemicals used in hosiery processing.

**Tests for Lead in Commercial Products**

As part of their effort the HTC contacted stakeholders within the entire industry supply chain. To date, the survey has included 3,594 Material Safety Data Sheets, out of which no products with lead have been identified. Additionally, the HTC conducted EPA Wastewater Inspections – 154 tests with zero lead content. Finally, 959 sock tests were performed and none tested positive for lead. The conclusion that HTC reached was that no embellished commercial products in the supply chain contained lead.

**Table 1**

| **Commercial Socks** | |
|---|---|
| Coolmax Polyester/A.M.Y/Spandex | < 63 ppm |
| Polyester/Nylon/Silver/Spandex | < 63 ppm |
| Rayon/Cotton/Nylon/Spandex | < 63 ppm |
| Wool/Nylon/Spandex | < 63 ppm |
| Cotton/Nylon/Spandex | < 63 ppm |
| Cotton/Acrylic/Nylon/Spandex | < 63 ppm |

Multi-fiber strips were agitated vigorously in a solution of 2% nitric acid for 2 hours. The extract was then analyzed using atomic absorption spectrometry (AAS). (The same tests performed using commercially available socks with different fiber contents to determine any lead levels present).

As illustrated above, in all the samples, using all of the different combination of materials, the lead level was consistently measured at less than 63 ppm.

To put this amount in perspective, one can compare it to potential everyday exposure to lead through other vectors. For example, the EPA action level for drinking water consumed is 0.015 milligrams/liter or .015 milligrams/day, assuming a child drinks 1 liter of water daily. Federal EPA inhalation action level is 0.00015 milligrams of lead per cubic meter. Based on California EPA research a child sitting inhales approximately 10 cubic meters of air per day. Consequently, the airborne lead limit for children is .0015 milligrams/day. The FDA limits for food consumption of lead is 0.006 milligrams per day.

**Table 2**

| | Lead limit Milligrams/day |
|---|---|
| Water (EPA) | .015 |
| Air (CA EPA) | .0015 |
| Food (FDA) | .006 |
| **TOTAL** | **.0225** |

A 2 gram sample of sock (<63 ppm Pb) contains less than 0.125 milligrams of lead. To reach a lead level equivalent to the limit allowed through the consumption of water, air and food combined, a child would have to consume approximately 2 grams of socks every 5-6 days.

Furthermore, the HTC concluded that although "leaded fabric" can be created, it cannot be produced with commercially available dyes and finishes. The simple reason is that the leaded fabrics would not be commercially acceptable for colorfastness. Leaded fabrics would require more expensive dyes – up to 3 times the cost for currently available dyes - and yield poorer dyeing quality verses industry standard (lead free) commercially available dyes and finishes.

As mentioned previously, we are very pleased to share this information with you and your staff. We hope that this data will help you make a final determination that unembellished legwear products should be excluded from the lead testing and certification requirements under the CPSIA.

We believe that this position is consistent with the stated position of the Congressional authors of the CPSIA. In their letter of January 16, 2009, Chairmen Waxman and Rockefeller, and Subcommittee Chairmen Rush and Pryor supported the Commission's efforts to determine that some products which do not contain lead should be excluded from third-party testing requirements under the CPSIA. These products included "children's apparel that consist entirely of dyed or undyed fabric that is unlikely to contain excess amounts of lead and does not include metal, plastic, or painted component that may contain amounts of lead in excess of the law's limits." This exclusion would not overrule the application of the lead limits to these products, rather "[it] would serve only to relieve the manufacturers of such material or products from the testing and certification requirements established by the law." The Congressional letter, moreover, encouraged the Commission "to expedite consideration of such a determination for children's books and children's apparel that contain no painted, plastic, or metal components."

The CPSC's "Statement of Enforcement" lent additional support of this position by clearly articulating that "dyed or undyed textiles (not including leather, vinyl or PVC) and non-metallic thread and trim used in children's apparel and other children's fabric products such as baby blankets" consistently have under the required lead level limit of 300 ppm.[1]

The members of the Legwear Coalition, strongly encourage the Commission to complete its final ruling on the exclusion of unembellished legwear. We believe, as does Congress, that children's apparel, in particular children's legwear products, conform with the guidelines established, and should therefore be immediately excluded from CPSIA testing and certification requirements.

We look forward to remaining in close communication with you in the future. If you have any questions or comments regarding any aspect of the application of the CPSIA on the legwear industry, please contact Sally Kay of The Hosiery Association at 704.365.0913, ext. 212 or via email sally.kay@hosieryassociation.com. Thank you in advance for your attention and assistance.

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[1] http://cpsc.gov/about/cpsia/101lead.pdf

Sincerely,

The Hosiery Association
Acme-McCrary Corporation
Crescent Inc.
Hanesbrands Inc.
Kayser-Roth Corporation
Knit-Rite Inc.
Renfro Corporation

## Stevenson, Todd

**From:** Ned Steiner [esteiner@strtrade.com]
**Sent:** Tuesday, February 17, 2009 4:58 PM
**To:** Lead Determinations
**Subject:** Request for final determination regarding the exclusion of unembellished legwear from Section 101(b) lead testing and Section 102 certification requirements
**Attachments:** exclusion from lead testing comments.pdf

219

February 17, 2009

Todd A. Stevenson
Office of the Secretary
Consumer Product Safety Commission
4330 East-West Highway
Bethesda, Maryland 20814

Via Email: Sec101Determinations@cpsc.gov

**RE: Section 101 Determinations of Certain Materials or Products NPR**
**Section 101 Request for Lead Content Determination**

Dear Mr. Stevenson:

I am writing on behalf of Scholastic Inc. (Scholastic) - the world's largest publisher and distributor of children's books - to comment on the proposed rulemaking of the Consumer Product Safety Commission (CPSC) pertaining to determinations of lead content in children's products pursuant to Section 101 of the Consumer Product Safety Improvement Act of 2008 (CPSIA). In particular, Scholastic wishes to provide comments as such rules would relate to "ordinary books" [1] designed or intended primarily for children ages twelve and younger.

Scholastic was founded in 1920 with a mission of bringing "today's" world into the classroom. Eighty-nine years later, Scholastic is the world's largest publisher and distributor of children's books; in fiscal 2008, Scholastic published or distributed approximately 350 million children's books in the United States alone. Scholastic is also a global leader in children's education and media, dedicated to its mission of helping children around the world to read and learn. We maintain approximately 6,000 children's and young adult titles for trade distribution, and Scholastic reading materials are found in 97% of schools across all fifty states. Scholastic also has a longstanding commitment to quality children's literature, as evidenced by the fact that many of its children's books have received awards for excellence in children's literature, including Newbery Honors and the Caldecott Medal (the latter awarded most recently in 2008, for *The Invention of Hugo Cabret*).

Scholastic strongly supports the general goals of the CPSIA: protecting children from lead exposure and promoting policies aimed at significantly reducing the amount of allowable lead contained in children's products. Indeed, as a company whose products are designed primarily for use by children, Scholastic has always placed product safety among its highest priorities. Scholastic has routinely safety tested its toy and novelty products through independent testing laboratories to insure that such products meet or exceed applicable federal and industry

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[1] Scholastic uses the term "ordinary books" in this comment to mean paper-based, printed books that are designed or intended primarily for children 12 years of age or younger. Scholastic does not include in this term so-called "novelty" products such as, for example, plastic-based bath toys or teething products that are made to resemble books in shape and form, or books that have plastic, metal or electronic parts that are not part of the binding and with which children may be expected to interact.

safety standards, and we look forward to continuing this commitment to providing safe children's products under the new standards set forth in the CPSIA.

However, Scholastic is greatly concerned that the CPSIA—and the related NPR—will also require "ordinary books" for children to undergo extensive and costly independent lead testing, despite any evidence at all that such products can or do expose children to dangerous levels of lead - or indeed, any lead at all. It is our firm belief that Congress, in enacting the CPSIA, did not intend to sweep children's ordinary books within the scope of this law. Nor do we believe that Congress intended, by passing the CPSIA, to cause parents, teachers, librarians, and children's booksellers to falsely perceive that children's books currently on their shelves could pose a safety threat to children, in the absence of any scientific evidence to support this belief. Scholastic therefore respectfully requests the CPSC to exercise its general rulemaking authority pursuant to Section 3 of the CPSIA to make a determination (and to adopt findings and/or regulations) that "ordinary books" and their component materials do not contain lead in amounts exceeding the prescribed limits for total lead content in children's products, and are thus to be categorically excluded from the CPSIA.

In particular, Scholastic urges CPSC to consider two steps during its rulemaking process that would clarify the status of ordinary children's books.

First, in relation to the NPR on Determinations of Certain Materials or Products, Scholastic recognizes that the main thrust of this proposed rule is to identify "commodities or classes of materials that do not inherently contain lead or contain lead that does not exceed the CPSIA lead limits of 600 ppm or 300 ppm." However, while the preliminary listing of materials provided in the proposed rule is limited to "natural materials" and "certain metals and alloys," Scholastic notes that the CPSC has also requested comments on "other materials, which by their nature, would not exceed the lead content limits." Scholastic believes that there is no inherent reason for the CPSC to limit its preliminary determinations to "natural" products alone, particularly where the process of creating a composite product from non-lead containing sources (such as an ordinary book) does not introduce any lead into either the production process or the final product (see pp. 3, 10-11, 13 of the comments and responses submitted by the Association of American Publishers ("AAP") dated February 12, 2009). As the CPSC already interprets its authority under Section 3 of the CPSIA to allow it to make a finding that a "specific material or product does not exceed the lead content limits," Scholastic believes that based on the evidence already presented to CPSC by the publishing industry, such a finding is eminently proper and well within the CPSC's authority and within the legislative intent of the Act (see below).

Second, with respect to the NPR outlining the procedures pertaining to the process of establishing categorical exclusions (if a product does not receive a preliminary exclusion), Scholastic strongly believes that the publishing industry has provided CPSC with sufficient data on "ordinary books"— both in scope and detail —to comply with the procedures as outlined in the proposed rule. Scholastic would thus urge the CPSC to adopt a finding, in accordance with the procedures outlined in the proposed rule, that would exclude "ordinary books" from the CPSIA.

As the CPSC is aware, there is significant evidence from the publishing community, including the printers that Scholastic relies upon for the totality of its printing of ordinary children's books, that neither the raw materials for ordinary books nor the production process itself contains or introduces any appreciable amount of lead into ordinary books (see generally the AAP's February 12 comments and responses). Indeed, in over 150 tests on the inks, papers, adhesives, laminates, coatings, and other component materials used in such "ordinary books," conducted by accredited laboratories using generally accepted standards for determining lead content, the lead content in every test was either non-detectable or detectable at approximately 10 ppm. As the CPSC is aware, this is far below even the strictest limit (100ppm) envisioned by the CPSIA.[2]

Scholastic recognizes the desire of the CPSC to ensure that these results are representative of the children's publishing industry as a whole. Scholastic believes that the nature and structure of the children's publishing industry indicates that they are representative and Scholastic is not aware of any cited results to the contrary. The children's publishing industry is limited to a very small number of major publishers - the ten largest publishers of children's books in the United States comprise over eighty percent of the domestic market. In terms of the manufacturing process for ordinary books, all of these children's publishers rely on an even smaller set of equipment suppliers; no more than ten manufacturers produce the presses and equipment utilized by today's ordinary book publishers, and fewer than five manufacturers produce the binding equipment. Furthermore, neither the commercial ink nor commercial paper and paperboard industries who supply these publishers utilize lead-based chemicals in either their production processes or finished products, due in part to their own industry standards, EPA, OSHA, and CPSC standards, and the fact that nineteen states have adopted laws intended to reduce and, eventually, eliminate lead and certain other heavy metals from packaging and packaging materials (based on standards promulgated in 1989 by the Coalition of Northeastern Governors (CONEG)). Given the highly concentrated nature of the supplier network for the children's ordinary book publishing industry, Scholastic believes that the test results made available to the CPSC are indeed representative of the children's ordinary book publishing industry as a whole.

It is important to also recognize that, were ordinary children's books nevertheless required to undergo lead testing pursuant to the CPSIA, the economic consequences would be devastating to Scholastic and other children's publishers, as well as to all resellers and the parents, teachers and other end customers who purchase children's ordinary books. In 2008 alone, Scholastic issued nearly 18,000 purchase orders for the production of individual book products. Although several thousand of those book products were "book-plus" items (i.e., books containing materials other than paper and ink) that would undergo Scholastic's strict independent safety testing as a matter of course, the vast majority of those items—approximately 15,000 — were "ordinary books." Obtaining independent safety testing for each of these products at current rates would cost Scholastic between $300 and $500 per item, resulting in total annual

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[2] Scholastic would point the CPSC to the data compiled by the publishing industry and available at www.rrd.com/cpsia and the AAP's February 12 comments and responses for a more detailed presentation of this evidence.

testing costs of between $4.5 and $6.0 million. Thus, in addition to suffering unpredictable and unmanageable manufacturing and publishing delays in awaiting test results, Scholastic would also be forced to either cover these costs by raising its book prices, or decrease the number of children's book titles published. Under either scenario, the availability of affordable quality reading material would be significantly reduced, despite the fact that there is no evidence that such books pose any health hazards to children whatsoever. Scholastic does not believe that this was the outcome contemplated by Congress in passing CPSIA, and urges the CPSC to clarify that the provisions of the CPSIA were not intended to apply to ordinary children's books.

Finally, Scholastic would be remiss if it did not acknowledge its appreciation for the willingness of the CPSC staff to engage with publishing and related industries over the past four months in what we believe has been a constructive and valuable dialogue regarding both the existing evidence pertaining to lead and ordinary books, and the additional evidence the CPSC believes is necessary to support a categorical exclusion of ordinary books from the CPSIA. Moreover, Scholastic applauds the proactive decision of the CPSC to delay the February 10, 2009 certification and testing provisions of the CPSIA in order to have adequate time to develop thorough and evidence-based determinations on, among other things, categorical exclusions for products like ordinary books. Without such action by the CPSC, Scholastic and many other children's publishers faced the prospect of retailers discarding or returning existing inventory (at the publisher's expense) for no other reason than that this stock had not been previously certified to comply with the new lead limits of the CPSIA, despite the fact that these products had been produced in compliance with all applicable laws and regulations and standards at the time of manufacture and presented no reason to suspect that they were in any way unsafe.

Scholastic is pleased to have the opportunity to make this submission and hopes that our comments, together with the comments of the AAP and other interested parties, will assist the CPSC in finding that "ordinary books" merit a categorical exclusion from the CPSIA. Thank you for your attention and consideration.

Sincerely,

Scholastic Inc.
557 Broadway
New York, New York 10012

Andrew Hedden
E.V.P & General Counsel
Phone: 212-343-6641
ahedden@scholastic.com

Francine Colaneri
V.P. – Manufacturing and Supply Chain
Phone: 212-343-4430
fcolaneri@scholastic.com

**Stevenson, Todd**

**From:** Lick, Christopher [CLick@Scholastic.com]
**Sent:** Tuesday, February 17, 2009 4:50 PM
**To:** Lead Determinations
**Subject:** Scholastic Inc.: Section 101 Determinations of Certain Materials or Products NPR & Section 101 Request for Lead Content Determination
**Attachments:** Scholastic Inc. Comments.pdf

Dear Mr. Stevenson:

Please see the attached correspondence from Scholastic Inc.

Sincerely,

Christopher Lick

Christopher Lick | **Scholastic Inc.**
Counsel
557 Broadway | New York, NY 10012
DD: 212.343.6560 | F: 212.343.6538
CLick@Scholastic.com | www.Scholastic.com

## Stevenson, Todd

**From:** Jennifer Hively [luloobella@yahoo.com]
**Sent:** Tuesday, February 17, 2009 3:27 PM
**To:** Lead Determinations
**Subject:** cpsia excemption comment

"Thank you for the opportunity to comment on this matter. In addition to the materials exempted at present, I request that the Commission exempt the following:

Any Natural Materials Regulated as Foodstuffs by the FDA. This includes vegetable and nut oils, grain flours, medicinal-grade mineral oil, table salt, flax seed, FDA-approved food coloring, cream of tartar, dried beans, dried corn, essential plant oils, herbs, witch hazel, millet, and FDAapproved food preservatives.
Any Materials Which are Regulated as Art Materials and Meet ASTM D-4236 Standards. These should not require additional testing.
Other Natural Materials which are not otherwise regulated but are known to not contain lead that are not currently exempted: paper, cardboard, bark, rattan, beeswax, natural rubber latex, lavender, 100% pure tung oil (in its cured form), milk paint (in its cured form), flower petals, dried plants, shellac (in its cured form), bamboo, bamboo fiber, plant-based dyes, nut shells, hide glue, Candelilla wax, Carnauba wax, loofa, jute, kapok, moss, straw, and jojoba oil.
Any and all Natural Materials which have been modified by the addition of other lead-free materials or lead-free chemicals. Even if the natural textiles are processed through the addition of chemicals, including pigments, dyes, bleaches, or other substances provided those chemicals either do not contain lead or do not introduce lead to the product above the CPSIA limits.
All dyed or undyed textiles (cotton, wool, hemp, nylon, etc.), including children's fabric products, such as baby blankets, and non-metallic thread and trim.
Reclaimed Textiles: These items would have met existing standards at the time of their original manufacture and because these remanufactured items are by definition one of a kind, testing of these reclaimed textiles should not be required.
In addition to these materials, I strongly encourage the Commission to adopt rules that allow component testing for finished product in lieu of testing of the finished product and that products that have been deemed compliant under EU standards and bear the CE mark as as result are deemed compliant."

Jennifer Greensted
www.mamarunswithscissors.com

220

**Stevenson, Todd**

**From:** Bill Creager [bcreager@cmpaula.com]
**Sent:** Tuesday, February 17, 2009 2:32 PM
**To:** Lead Determinations
**Subject:** Se3ction 101 Determininations of Certain Materials or Products NPR
**Attachments:** CPSC Letter GeoCentral.pdf

C. M. Paula
Family of Companies 6049 Hi-Tek Court, Mason, OH 45040-2603 513-336-3100 Fax: 513-336-3119

January 26, 2009

**VIA ELECTRONIC-MAIL: Sec101Determinations@cpsc.gov**

Office of the Secretary
U.S. Consumer Product Safety Commission,
4330 East West Highway, Room 502
Bethesda, MD 20814

**Re: Section 101 Determinations of Certain Materials or Products NPR**

Dear Secretary of the U.S. Consumer Product Safety Commission:

We are filing comments in response to the U.S. Consumer Product Safety Commission's request for comments (published in the Federal Register on Thursday, January 15, 2009) concerning the agency's preliminary determinations proposing Consumer Product Safety Improvement Act of 2008 (CPSIA) Section 102 testing exemptions for certain natural materials that either do not inherently contain lead or contain lead that does not exceed the CPSIA Section 101(a) lead limits of 600 ppm or 300 ppm. (This comment letter does not address the proposed exemptions for certain metals and alloys also listed in the Federal Register notice).

GeoCentral, a division of CM Paula Company, is a manufacturer, importer and distributor of natural materials, and products produced from natural materials. The comments in this letter pertain specifically to natural materials derived primarily from the earth, such as rocks, minerals, gemstones, fossils, and similar items that GeoCentral sells in various forms, such as jewelry, collectibles (including both bulk and packaged items), or educational kits, many of which are intended for children 12 and under.

We respectfully submit that the list of natural materials published in the Federal Register notice should be expanded to include those additional materials discussed below because such materials would not exceed the lead content limits of Section 101(a). In addition, notwithstanding the proposed exemptions for natural materials, and although comments have not been solicited on this point, we respectfully submit that these materials and items should be exempt from the CPSIA Section 103 "tracking label" requirements for the reasons outlined below.

## Background on List of Natural Materials Eligible for Exemption

Based on the CPSC's authority under Section 3 of the CPSIA to issue regulations to implement the CPSIA, CPSC has published a list of certain natural products and materials for which it has proposed a preliminary determination that:

(i) such products or materials inherently do not contain lead, or,

(ii) such products or materials contain lead at levels that do not exceed the lead content limits under Section 101(a) of the CPSIA.

The stated purpose of this proposed determination is to relieve such products or materials from the lead testing requirements of Section 102 of the CPSIA for the purposes of supporting the required conformity certifications. We understand that the exemption from testing under Section 102 does not relieve such products or materials from the requirement to meet the lead limits under Section 101(a), but these exemptions presume compliance due to the nature of the exempt materials.

In addition to the inherent lead-free or low lead nature of the materials on the list, CPSC also requires these materials to meet the following requirements:

(i) the materials must be untreated and unadulterated with respect to the addition of materials or chemicals such as pigments, dyes, coatings, finishes or any other substance; and,

(ii) the materials cannot undergo any processing that could result in the addition of lead into the product or materials.

The materials listed in the proposed preliminary determination are as follows:

1. Precious Gemstones:

    a. diamond
    b. ruby
    c. sapphire
    d. emerald

2. Certain Semiprecious Gemstones:

    a. Such semiprecious gemstones must be composed of a mineral or material that is:

        i. **not** based on lead or lead compounds, and,
        ii. **not** associated in nature with any mineral that is based on lead or lead compound

    b. Examples of minerals that **do** contain lead or are associated in nature with minerals that **do** contain lead include (but are not limited to) the following:

        Aragonite, Bayldonite, Boleite, Cerussite, Crocoite, Linarite, Mimetite, Phosgenite, Vanadinite, Wulfenite

c. Although the language is not cited specifically in the proposed regulation, the CPSC staff memorandum used to support the proposed exemption for semiprecious gemstones states that such gemstones are defined as "any of many minerals and other materials commonly used to make jewelry and other adornments".

3. Natural or Cultured Pearls

4. Wood

5. Natural Fibers such as cotton, silk, wool, hemp, flax, linen

6. Other natural materials including Coral, Amber, Feathers, Fur, Untreated Leather

For the reasons set forth below, we believe that this proposed list should be inclusive of additional natural materials, as well as all such materials that may have been physically, but not chemically, changed from their natural state. This would include artifacts carved from natural materials without further treatment. In addition, category 2(a) above should be expanded to include ALL minerals that are not lead-based and are not associated with lead in nature, regardless of whether or not they are commonly used for jewelry and personal adornment.

**Recommendation to Expand List of Natural Materials Eligible for Exemption**

Consistent with the CPSC's basis for its preliminary determinations concerning the listed natural materials, we respectfully submit that the additional natural materials listed below should be included as part of the list of exempt materials to the extent that they are untreated or unadulterated with any materials or chemicals (such as dyes, pigments, coatings, finishes, etc.), and that they do not undergo any processing that could result in the addition of lead into the product or material. We respectfully submit that these materials do not contain any lead, or if they do, the lead content is consistently below the limits set forth in section 101(a) of the CPSIA, and thus pose no risk of injury due to any potential absorption of lead into the body. Many of these natural materials are commonly found in abundance in and around households and yards, public parks, schools, etc., and have been handled by generations of children and adults without any reported injury.

*1. **Expanded List of Natural Materials**.*

Based on our experience with and knowledge of a vast number of natural materials, we are providing a list of additional natural materials that we believe should be included in the CPSC's preliminary determination as exempt materials under proposed Section 1500.91 under Part 1500 of Title 16 of the Code of Federal Regulations because they either contain no lead or amounts of lead that are below the most restrictive limits to be imposed under Section 101(a), as follows:

*Certain rocks, minerals, fossils, artifacts and other natural materials, whether sold in bulk or packaged form, typically used in connection with jewelry and gift items, collectibles (whether individual pieces or as sets), and educational kits, provided that they are not based on (or associated in nature with) any lead or lead compounds that would result in a lead content in excess of the lead limits set forth in Section 1500.91(a). These materials include the following (using the enumeration and categories as set forth in the Federal Register NPR):*

*2(b) Semiprecious gemstones (some of which are commonly used in jewelry, and some of which are not):*

- *Agate*

- *Amazonite*
- *Angelite*
- *Apatite*
- *Aventurine*
- *Amethyst*
- *Calcite*
- *Chrysocolla*
- *Chrysoprase*
- *Citrine*
- *Epidote*
- *Fluorite*
- *Fuchsite*
- *Geodes*
- *Gypsum*
- *Hematite*
- *Jasper*
- *Kyanite*
- *Lepidolite*
- *Malachite*
- *Mica*
- *Mookalite*
- *Obsidian*
- *Ocos*
- *Onyx*
- *Petrified wood*
- *Pyrite (Fool's Gold)*
- *Quartz*
- *Rock crystal*
- *Sandstone*
- *Selenite*
- *Soapstone*
- *Sodalite*
- *Tektite*
- *Tiger's Eye*
- *Tourmaline*
- *Unakite*

3. *Mother of Pearl*

6. *Other Natural Materials*

- *Sea shells*
- *Sharks' teeth*
- *Fossils (e.g., ammonites, orthoceras, fossilized sharks' teeth)*
- *Bone*
- *Ivory (ancient, not endangered species)*

*7. Artifacts cut, carved or otherwise made from any of the materials listed or proposed for categories 2(a), 3, 4, 5, and 6, such as:*

- *Arrow heads*
- *Figurines*

2. ***Natural Materials that are Physically or Mechanically Changed Should Be Exempt.***

In contrast to chemical treatments or other processing that could introduce substances or materials that may contain lead and could render these materials ineligible for the proposed testing exemption, physical or mechanical changes as a result of some type of processing, such as splitting, sculpting, carving, cutting, crushing, grinding, etc., should not preclude these natural materials from the testing exemption. (Of course, any other materials used in conjunction with these natural materials, such as metal, plastic, adhesives, etc., would continue to be subject to the Section 101 lead content restrictions and/or the lead paint restrictions under 16 C.F.R. Part 1303, and would continue to require testing under Section 102.)

For example, a natural stone material that is on the proposed list of exempt materials and that is used to create a sculpture should be exempt from testing under Section 102 to the extent that the sculpting process resulted only in a physical, not chemical, change to the natural material.

3. ***Definition of Semiprecious Gemstones Should Not Be Limited to Jewelry Items.***

Although the language is not cited specifically in the proposed regulation, the CPSC staff memorandum used to support the proposed exemption for semiprecious gemstones states that such gemstones are defined as "any of many minerals and other materials commonly used to make jewelry and other adornments". As noted above, we respectfully submit that CPSC should modify its proposed regulations such that semiprecious gemstones should not be defined simply as gemstones consisting of minerals and other materials commonly used to make jewelry and other adornments. There are many semiprecious gemstones that should be exempt and that are not necessarily commonly used in jewelry or similar items. Such a restrictive definition would unnecessarily impede the creativeness of artisans who are constantly expanding the universe of natural products that can be transformed into jewelry, personal adornment, educational material, and miniature works of art for both adults and children

**Comments on Tracking Labels for Natural Materials and Other GeoCentral Products**

Pursuant to Section 103 of the CPSIA, beginning August 14, 2009, the manufacturer of a children's product must place permanent, distinguishing marks on the product and its packaging identifying the location and date of production of the product, the manufacturer or private labeler, cohort information (including the batch, run number, or other identifying characteristic), and any other information that would facilitate ascertaining the specific source of the product. CPSC has advised that hangtags and adhesive labels cannot be used as tracking labels.

As acknowledged by CPSC on its CPSIA website, "Congress modified the requirement for tracking labels with the phrase *'to the extent practicable'* recognizing that it may not be practical for permanent distinguishing marks to be printed on small toys and other small products that are manufactured and shipped without individual packaging." GeoCentral's product line consists of numerous small geological products (e.g. rocks, fossils, sharks teeth, etc.) that are shipped without individual packaging in many cases, as well as many other small manufactured products (e.g., beads, marbles, etc.). The company has determined that it would be

virtually impossible to affix permanent marks or tracking labels to these items. Moreover, retailers that sell GeoCentral's products, such as assortments of loose rocks and minerals offered for sale in refillable bins, often mix and match packaging (as well as rocks and minerals) from other suppliers when wrapping these items at the point of purchase for consumers. Based on these facts, GeoCentral has determined that it will not be practical to print permanent marks on its small items. Accordingly, the Company respectfully requests the CPSC to create a special exemption for its small natural and manufactured items described more fully in prior sections. In fact, adding printed marks or labels increases the risk of lead-containing inks and might even trigger a testing requirement for otherwise exempt geological materials.

Thank you for your consideration of this submission.

Sincerely,

Greg Ionna

President and CEO

CM Paula Company / GeoCentral, LLC

CC: The Honorable Sherrod Brown
The Honorable George Voinovich
The Honorable Jean Schmidt
The Honorable Michael Turner

William Creager
Executive VP / CFO
C. M. Paula Company

C. M. Paula®
Family of Companies
6049 Hi-Tek Court, Mason, OH 45040-2603
513-336-3100
Fax: 513-336-3119

January 26, 2009

**VIA ELECTRONIC-MAIL: Sec101Determinations@cpsc.gov**

Office of the Secretary
U.S. Consumer Product Safety Commission,
4330 East West Highway, Room 502
Bethesda, MD 20814

**Re: Section 101 Determinations of Certain Materials or Products NPR**

Dear Secretary of the U.S. Consumer Product Safety Commission:

We are filing comments in response to the U.S. Consumer Product Safety Commission's request for comments (published in the Federal Register on Thursday, January 15, 2009) concerning the agency's preliminary determinations proposing Consumer Product Safety Improvement Act of 2008 (CPSIA) Section 102 testing exemptions for certain natural materials that either do not inherently contain lead or contain lead that does not exceed the CPSIA Section 101(a) lead limits of 600 ppm or 300 ppm. (This comment letter does not address the proposed exemptions for certain metals and alloys also listed in the Federal Register notice).

GeoCentral, a division of CM Paula Company, is a manufacturer, importer and distributor of natural materials, and products produced from natural materials. The comments in this letter pertain specifically to natural materials derived primarily from the earth, such as rocks, minerals, gemstones, fossils, and similar items that GeoCentral sells in various forms, such as jewelry, collectibles (including both bulk and packaged items), or educational kits, many of which are intended for children 12 and under.

We respectfully submit that the list of natural materials published in the Federal Register notice should be expanded to include those additional materials discussed below because such materials would not exceed the lead content limits of Section 101(a). In addition, notwithstanding the proposed exemptions for natural materials, and although comments have not been solicited on this point, we respectfully submit that these materials and items should be exempt from the CPSIA Section 103 "tracking label" requirements for the reasons outlined below.

## Background on List of Natural Materials Eligible for Exemption

Based on the CPSC's authority under Section 3 of the CPSIA to issue regulations to implement the CPSIA, CPSC has published a list of certain natural products and materials for which it has proposed a preliminary determination that:

(i) such products or materials inherently do not contain lead, or,

(ii) such products or materials contain lead at levels that do not exceed the lead content limits under Section 101(a) of the CPSIA.

The stated purpose of this proposed determination is to relieve such products or materials from the lead testing requirements of Section 102 of the CPSIA for the purposes of supporting the required conformity certifications. We understand that the exemption from testing under Section 102 does not relieve such products or materials from the requirement to meet the lead limits under Section 101(a), but these exemptions presume compliance due to the nature of the exempt materials.

In addition to the inherent lead-free or low lead nature of the materials on the list, CPSC also requires these materials to meet the following requirements:

(i) the materials must be untreated and unadulterated with respect to the addition of materials or chemicals such as pigments, dyes, coatings, finishes or any other substance; and,

(ii) the materials cannot undergo any processing that could result in the addition of lead into the product or materials.

The materials listed in the proposed preliminary determination are as follows:

1. Precious Gemstones:

   a. diamond
   b. ruby
   c. sapphire
   d. emerald

2. Certain Semiprecious Gemstones:

   a. Such semiprecious gemstones must be composed of a mineral or material that is:

      i. **not** based on lead or lead compounds, and,
      ii. **not** associated in nature with any mineral that is based on lead or lead compound

   b. Examples of minerals that **do** contain lead or are associated in nature with minerals that **do** contain lead include (but are not limited to) the following:

Aragonite, Bayldonite, Boleite, Cerussite, Crocoite, Linarite, Mimetite, Phosgenite, Vanadinite, Wulfenite

c. Although the language is not cited specifically in the proposed regulation, the CPSC staff memorandum used to support the proposed exemption for semiprecious gemstones states that such gemstones are defined as "any of many minerals and other materials commonly used to make jewelry and other adornments".

3. Natural or Cultured Pearls

4. Wood

5. Natural Fibers such as cotton, silk, wool, hemp, flax, linen

6. Other natural materials including Coral, Amber, Feathers, Fur, Untreated Leather

For the reasons set forth below, we believe that this proposed list should be inclusive of additional natural materials, as well as all such materials that may have been physically, but not chemically, changed from their natural state. This would include artifacts carved from natural materials without further treatment. In addition, category 2(a) above should be expanded to include ALL minerals that are not lead-based and are not associated with lead in nature, regardless of whether or not they are commonly used for jewelry and personal adornment.

**Recommendation to Expand List of Natural Materials Eligible for Exemption**

Consistent with the CPSC's basis for its preliminary determinations concerning the listed natural materials, we respectfully submit that the additional natural materials listed below should be included as part of the list of exempt materials to the extent that they are untreated or unadulterated with any materials or chemicals (such as dyes, pigments, coatings, finishes, etc.), and that they do not undergo any processing that could result in the addition of lead into the product or material. We respectfully submit that these materials do not contain any lead, or if they do, the lead content is consistently below the limits set forth in section 101(a) of the CPSIA, and thus pose no risk of injury due to any potential absorption of lead into the body. Many of these natural materials are commonly found in abundance in and around households and yards, public parks, schools, etc., and have been handled by generations of children and adults without any reported injury.

*1. **Expanded List of Natural Materials**.*

Based on our experience with and knowledge of a vast number of natural materials, we are providing a list of additional natural materials that we believe should be included in the CPSC's preliminary determination as exempt materials under proposed Section 1500.91 under Part 1500 of Title 16 of the Code of Federal Regulations because they either contain no lead or amounts of lead that are below the most restrictive limits to be imposed under Section 101(a), as follows:

*Certain rocks, minerals, fossils, artifacts and other natural materials, whether sold in bulk or packaged form, typically used in connection with jewelry and gift items, collectibles (whether individual pieces or as sets), and educational kits, provided that they are not*

*3. Mother of Pearl*

*6. Other Natural Materials*

- *Sea shells*
- *Sharks' teeth*
- *Fossils (e.g., ammonites, orthoceras, fossilized sharks' teeth)*
- *Bone*
- *Ivory (ancient, not endangered species)*

*7. Artifacts cut, carved or otherwise made from any of the materials listed or proposed for categories 2(a), 3, 4, 5, and 6, such as:*

- *Arrow heads*
- *Figurines*

2. ***Natural Materials that are Physically or Mechanically Changed Should Be Exempt.***

In contrast to chemical treatments or other processing that could introduce substances or materials that may contain lead and could render these materials ineligible for the proposed testing exemption, physical or mechanical changes as a result of some type of processing, such as splitting, sculpting, carving, cutting, crushing, grinding, etc., should not preclude these natural materials from the testing exemption. (Of course, any other materials used in conjunction with these natural materials, such as metal, plastic, adhesives, etc., would continue to be subject to the Section 101 lead content restrictions and/or the lead paint restrictions under 16 C.F.R. Part 1303, and would continue to require testing under Section 102.)

For example, a natural stone material that is on the proposed list of exempt materials and that is used to create a sculpture should be exempt from testing under Section 102 to the extent that the sculpting process resulted only in a physical, not chemical, change to the natural material.

3. ***Definition of Semiprecious Gemstones Should Not Be Limited to Jewelry Items.***

Although the language is not cited specifically in the proposed regulation, the CPSC staff memorandum used to support the proposed exemption for semiprecious gemstones states that such gemstones are defined as "any of many minerals and other materials commonly used to make jewelry and other adornments". As noted above, we respectfully submit that CPSC should modify its proposed regulations such that semiprecious gemstones should not be defined simply as gemstones consisting of minerals and other materials commonly used to make jewelry and other adornments. There are many semiprecious gemstones that should be exempt and that are not necessarily commonly used in jewelry or similar items. Such a restrictive definition would unnecessarily impede the creativeness of artisans who are constantly expanding the universe of natural products that can be transformed into jewelry, personal adornment, educational material, and miniature works of art for both adults and children

*based on (or associated in nature with) any lead or lead compounds that would result in a lead content in excess of the lead limits set forth in Section 1500.91(a). These materials include the following (using the enumeration and categories as set forth in the Federal Register NPR):*

*2(b) Semiprecious gemstones (some of which are commonly used in jewelry, and some of which are not):*

- *Agate*
- *Amazonite*
- *Angelite*
- *Apatite*
- *Aventurine*
- *Amethyst*
- *Calcite*
- *Chrysocolla*
- *Chrysoprase*
- *Citrine*
- *Epidote*
- *Fluorite*
- *Fuchsite*
- *Geodes*
- *Gypsum*
- *Hematite*
- *Jasper*
- *Kyanite*
- *Lepidolite*
- *Malachite*
- *Mica*
- *Mookalite*
- *Obsidian*
- *Ocos*
- *Onyx*
- *Petrified wood*
- *Pyrite (Fool's Gold)*
- *Quartz*
- *Rock crystal*
- *Sandstone*
- *Selenite*
- *Soapstone*
- *Sodalite*
- *Tektite*
- *Tiger's Eye*
- *Tourmaline*
- *Unakite*

**Comments on Tracking Labels for Natural Materials and Other GeoCentral Products**

Pursuant to Section 103 of the CPSIA, beginning August 14, 2009, the manufacturer of a children's product must place permanent, distinguishing marks on the product and its packaging identifying the location and date of production of the product, the manufacturer or private labeler, cohort information (including the batch, run number, or other identifying characteristic), and any other information that would facilitate ascertaining the specific source of the product. CPSC has advised that hangtags and adhesive labels cannot be used as tracking labels.

As acknowledged by CPSC on its CPSIA website, "Congress modified the requirement for tracking labels with the phrase *'to the extent practicable'* recognizing that it may not be practical for permanent distinguishing marks to be printed on small toys and other small products that are manufactured and shipped without individual packaging." GeoCentral's product line consists of numerous small geological products (e.g. rocks, fossils, sharks teeth, etc.) that are shipped without individual packaging in many cases, as well as many other small manufactured products (e.g., beads, marbles, etc.). The company has determined that it would be virtually impossible to affix permanent marks or tracking labels to these items. Moreover, retailers that sell GeoCentral's products, such as assortments of loose rocks and minerals offered for sale in refillable bins, often mix and match packaging (as well as rocks and minerals) from other suppliers when wrapping these items at the point of purchase for consumers. Based on these facts, GeoCentral has determined that it will not be practical to print permanent marks on its small items. Accordingly, the Company respectfully requests the CPSC to create a special exemption for its small natural and manufactured items described more fully in prior sections. In fact, adding printed marks or labels increases the risk of lead-containing inks and might even trigger a testing requirement for otherwise exempt geological materials.

Thank you for your consideration of this submission.

Sincerely,

Greg Ionna

President and CEO

CM Paula Company / GeoCentral, LLC

CC: The Honorable Sherrod Brown
The Honorable George Voinovich
The Honorable Jean Schmidt
The Honorable Michael Turner