

June 28, 2013

Office of the Executive Director
U.S. Consumer Product Safety Commission
4330 East West Highway; Room 720
Bethesda, MD 20814-4408

RE: Appeal of Denial of Demand for Correction of Information under the Information Quality Act: Synthetic Turf Report and “Safe to Play” Assurances

On March 21, 2013 Public Employees for Environmental Responsibility (PEER) submitted a complaint seeking correction under the Information Quality Act (IQA) of 2000 to the Consumer Product Safety Commission (CPSC) [ATTACHMENT I]. This complaint demanded that the CPSC rescind and correct online printed information regarding the safety of artificial turf, including the 2008 report, “CPSC Staff Analysis and Assessment of Synthetic Turf ‘Grass Blades’” (2008 Report) and accompanying press release “CPSC Staff Finds Synthetic Turf Fields OK to Install, OK to Play On” (Press Release).

In a letter dated May 31, 2013, DeWane Ray, the Assistant Executive Director in the CPSC Office of Hazard Identification and Reduction, indicated that the PEER complaint would not be acted upon and advised us of our rights to appeal under the provisions of the CPSC Information Quality Guidelines [ATTACHMENT II].

By this letter, PEER hereby appeals this denial for reasons outlined below.

Initial Observation – No Procedural Issues

The CPSC denial did not rebut or even mention that the material that is the subject of the PEER complaint is clearly “influential information” within the meaning of and, therefore, subject to challenge under the IQA. Nor did the denial disagree that because this influential information is in the form of safety assurances, it must be based upon complete, reliable and objective information.

Basis of Appeal

The CPSC’s guidelines state that information disseminated by the agency should be objective. The guidelines define objectivity as the use of reliable data sources, use of sound analytic techniques, a policy for correcting errors, and revising previously disseminated information.

The PEER complaint detailed how the information released by the CPSC regarding the safety of artificial turf does not satisfy the CPSC's requirement of objectivity as described in the CPSC's guidelines for information quality. Specifically, the 2008 Report did 1) not use reliable data sources; 2) not use sound analytic techniques; 3) not have a clear policy for correcting the errors in the study as they stood or in light of new reliable data from elsewhere; and 4) the challenged press materials for "Safe to Install, Safe to Play" were not supported by the admittedly limited study conducted by CPSC staff.

Taking each of these issues in turn, we will compare the CPSC response in its denial and explain why that response is not tenable:

1. Unreliable Data Sources

Complaint: The PEER complaint was based on the following points:

- a) CPSC staff ignored all pathways to lead exposure other than ingestion from hand-to-mouth, such as inhalation or trans-dermal absorption.
- b) The 2008 Report was admittedly based on a small handful of samples and does not justify any conclusive statements about the product.
- c) The 2008 Report does not specify how the samples were selected, who selected them or on what basis.
- d) The 2008 Report does not recognize (or even comment upon) the differences in the data it obtained from indoor versus outdoor fields and fields with yellow-color versus green-color blades. The differences in the type of field based upon the different data produced are potentially significant.
- e) The 2008 Report did not look at older fields, worn by extensive use.

CPSC response: In his response Mr. Ray wrote –

- a) "Based upon staff's knowledge about children's behaviors...staff focused on children's...hand-to-mouth transfer of lead that might collect on the hands."
- b) "Although these samples may not be representative of all synthetic turf products in the United States in 2008, staff believed the data collected were adequate to illustrate the potential levels of exposure in children who might play on such surfaces."
- c) Staff did not examine older synthetic turf fields because in "2008, very few older synthetic turf fields existed" and "products tested were the only ones available to staff."

- d) That “using protocols developed by staff over years of evaluating products” the study produced “the best available data at that time.”

Rebuttal: We believe that Mr. Ray’s response largely confirms and reinforces the bases of our complaint:

- a) **Ingestion Only.** Mr. Ray does not explain what about the staff’s behavioral knowledge of children led it to focus solely on hand-to-mouth ingestion from turf blades. Given that tire crumb underlying the turf is accessible (and often in pellets painted in bright colors), Mr. Ray does not even mention why CPSC did not consider small children directly ingesting accessible tire crumb particles.

Further, there is no explanation why CPSC did not consider trans-dermal absorption. Especially as the synthetic playgrounds are places where children wrestle, roughhouse and frequently fall, a reasonable person would look at absorption from scrapes and cuts.

Even more mystifying is the failure of CPSC to even consider, let alone attempt to measure, inhalation of lead micro-particles. Unlike lead-based paint which is relatively static, the synthetic turf is the site for running and jumping – activities likely to cause off-gassing from chemical-laden surfaces.

- b) **Unrepresentative samples.** While admitting that the very few samples actually tested “may not be representative,” Mr. Ray nonetheless states a belief that enough testing was done to adequately “illustrate potential levels of exposure...” Mr. Ray does not explain the basis of this belief other than his assertion.

Mr. Ray states that CPSC analyzed “samples from extra turf that had been left over” after installation or removal but does not explain who selected these samples or on what basis they were selected other than their availability.

As there is no way to tell if the CPSC samples are representative of the synthetic turf products available, a report which contained general conclusions about the product, as the 2008 Report and press release did, is both misleading and irresponsible.

- c) **No older fields.** In looking at the safety of a product, one would think CPSC would monitor a product over its life-time, not just as it emerges from the factory.

As our complaint points out, the CPSC data “clearly shows a difference in . . . age of the field with relation to the presence of lead.” Given that data pattern, it is disquieting that Mr. Ray exhibited no interest as to the meaning or extent of higher lead exposure as fields age.

Finally, although claiming that no older fields were available, Mr. Ray indicated that CPSC had samples “that became available when a field was dismantled.” It would be most unusual to dismantle a new field – an anomaly that only underlines the need for more reliable data before CPSC makes sweeping characterizations.

2. Unsound Analytic Techniques

Complaint: The PEER complaint was based on the CPSC –

- a) Failure to look at field infill. Instead, CPSC only looked at artificial blades of grass.
- b) Failure to look at any other chemical other than lead. As detailed in the complaint, shredded tire contains an array of chemicals other than lead that have known adverse human health effects.
- c) The 2008 Report found lead exposure but, inexplicably, used a model that assumed blood lead levels below 15 ug/L are safe for very young children.

CPSC response: Mr. Ray stated that—

- a) The “2008 Report was intended to test grass blades only for lead and not for other toxic substances.”
- b) “CPSC staff’s assessment was an appropriate, limited study for addressing the questions raised in early 2008 specifically about lead in synthetic turf products.” Because it was familiar with “methods for measuring lead in dust on surfaces in homes impacted by lead-based paint...staff concluded that these protocols were scientifically reasonable and appropriate...”
- c) Admits that lead exposure up to “15 micrograms/day” were found but explains that:

“Although staff agrees that there is likely no ‘safe’ level of exposure to lead, staff’s findings indicated that use of synthetic turf by young children would not cause substantial injury or illness under reasonably foreseeable use. Children’s products now fall under the restrictions on lead content provided by the CPSIA. However, synthetic turf products are not considered children’s products regulated under the CPSIA.”

Rebuttal:

- a) **Examination of blades only.** Synthetic turf consists of a deep infill of shredded tires topped by a surface mat, often containing artificial blades of grass. A typical synthetic sports field, for example, contains as many as 100,000 shredded tires

under a plastic-nylon cover. Thus, for CPSC to make conclusions about synthetic turf by looking only at the artificial grass blades on the surface is comparable to commenting on the ingredients of a cake from a tiny taste of its frosting.

As pointed out, the in-fill tire crumbs are plainly visible and accessible on synthetic turf with the slightest movement. Mr. Ray does not cogently respond to the contention in our complaint that by ignoring the in-fill the 2008 Report was based on an analytic technique that was far less complete and illustrative than required by the IQA Guidelines.

- b) **Focus on Lead Only.** Mr. Ray does not explain why there was only a question about lead in 2008 – or even who posed the question which framed the Report.

Nor does he dispute the recitation in our complaint about the long list of dangerous chemicals found in shredded tires (including arsenic, benzene, cadmium, chromium, cobalt, mercury, carbon black and polycyclic aromatic hydrocarbons) and that children playing on these surfaces risk direct and indirect exposure to these chemicals.

Furthermore, just looking at the grass blades in isolation, the 2008 Report did no “testing for other toxics, including those that are of concern for children; in particular, toxins such as cadmium and phthalates are required to be tested for in children’s products,” as noted in our complaint.

- c) **Lead Exposure Ignored.** The lead exposure that the limited 2008 Report found should clearly not have led to a declaration to parents that for their young children it was “OK to Play On” such a surface, considering –

- The focus of the CPSC report was on “potential for very young children to be exposed to lead while sitting or playing,” according to Mr. Ray;
- The Centers for Disease Control and Prevention (CDC) findings cited in the complaint that even low blood lead levels in children “are associated with IQ deficits, attention-related behaviors, and poor academic achievement.” The CDC continues that “these effects appear to be irreversible, [which] underscores the critical importance of primary prevention.” It is therefore disturbing that Mr. Ray would defend an “OK to Play On” summary for a Report indicating young children can be expected to be exposed to measureable levels of lead even just sitting on synthetic turf.
- The synthetic turf sampled by CPSC would be banned for sale to children for lead levels in excess of the standards for children’s products. Yet, in 2008 when the Report was produced CPSC had not ruled on whether synthetic turf was a children’s product. Given the purported focus on

young children, Mr. Ray should have assumed that protections for young children should be considered an appropriate standard.

- The classification as a children’s product is not a measure of the product’s safety but of how the product is marketed. In a September 12, 2012 letter to PEER, CPSC General Counsel Cheryl Falvey declared:

“It is the opinion of the Office of General Counsel that the determination of whether rubber mulch or crumb rubber is a children’s product depends on whether the company manufacturing the products intends that it be used by children 12 years of age or younger.”

Thus, the CPSC finding of lead exposure from synthetic turf grass blades should have raised a red flag that this product should not be marketed to children rather than that it is “OK to Play On.”

Hiding behind the legalism of whether it is a children’s product cuts against the very purpose of the study of addressing a question about the safety for very young children.

- d) **Duty to Use Best Available and Latest Science.** While Mr. Ray defends the Report as the best available data in 2008, time has marched on and CPSC cannot cling to the past. It should incorporate the new studies cited in the PEER complaint.

Indeed, the CPSC IQA Guidelines require precisely that. In discussing how risk assessments, such as the 2008 Report, should be conducted, they provide:

“Some of the influential information that we disseminate is based on an analysis of the risks to the public of certain actions or exposures to hazardous substances...The Agency will use —

- a. the best available science and supporting studies conducted in accordance with sound and objective scientific practices, including peer reviewed studies and supporting studies where available
- b. data collected by best-available method or accepted methods...”

The 2008 Report was not peer reviewed and the CPSC denial eschews newer peer reviewed science. Further, as outlined by the complaint, the data collection supporting the 2008 Report fell well short of the “best available method.”

3. Failure to Correct or Incorporate New Data

Complaint: The complaint cited several studies done after the 2008 Report that came to markedly different conclusions. For example, the June 2012 study done for the New Jersey Department of Environmental Protection found artificial fields made of tire crumb

can contain highly elevated levels of lead much greater than the allowed levels for children:

- It reports “concerns with regard to potential hazards that may exist for individuals and in particular children who engage in sports activities on artificial fields”; and
- Inhalable lead “present in artificial turf fields can be re-suspended by even minimal activity on the playing surface.”

The study was hampered by the unwillingness of schools with artificial turf field to have them tested. A total of 50 schools were approached by researchers and ultimately only 5 schools consented to testing their fields. The study concludes with this observation:

“For the present time, how widespread the presence of these high lead level fields is, is an unknown. At present the economic disincentive for schools or communities to measure the presence or absence of lead contamination appears to exceed any public concern for children’s safety.”

CPSC response: In his response, Mr. Ray writes that –

- a) For reasons stated in the denial, “additional studies of artificial fields are not merited.”
- b) While “more information has become available about chemical substances and other potential hazards associated with synthetic turf...staff has not found any information that casts doubts on staff’s evaluation in the 2008 report.”

Rebuttal: Mr. Ray does not explain why the studies cited in the PEER complaint did not pique his curiosity or interest in the slightest.

Moreover, his response confirms a violation of the CPSC IQA Guidelines which provide that CPSC must also maintain the “utility” of data it disseminates. The Guidelines provide:

“CPSC models have detailed documentation describing the goals and objectives of the model, the data sources being used and the methodologies and assumptions employed. CPSC models are based on best judgments of current and future behavioral relationships and methods of projection. The models are periodically updated to reflect input from internal and external reviews and research findings on behavioral relationships.” (Emphasis added)

Since the 2008 Report, which was admittedly hampered by lack of available samples, thousands more synthetic turf fields and playgrounds have been installed. Given this significant growth in product usage, CPSC would be remiss if it did not revisit its original inquiry. As the IQA Guidelines further provide:

“Utility is achieved by continuously monitoring information and developing new

information sources or by revising existing information collection methods, models, and information products where appropriate. (Emphasis added)

The PEER complaint, in essence, asks the CPSC to follow its own IQA Guidelines by incorporating newer, more complete information that has become available since 2008. Mr. Ray's seemingly stubborn response that the "limited" work that CPSC staff did back in 2008 should be the last word on this complex, emerging topic is both misguided and does a disservice to public safety.

4. Sweeping Conclusion Unsupported by Limited Study

Complaint: CPSC's Press Release, dated July 30, 2008, and the 2008 Report conclude, "that young children are not at risk from exposure to lead in these fields." The headline of this press release reads, "CPSC Staff Finds Synthetic Turf Fields OK to Install, OK to Play On." Together these statements lead the public to believe that the testing performed by the CPSC was thorough and rigorous, and that its conclusions are scientifically sound. Yet the Report was admittedly very limited and (as outlined above) employed techniques and relied on data that raise more questions than they answer. The press release reporting on this limited study used an unjustified sweeping conclusion in its headline.

CPSC response: Mr. Ray defends the "Turf Fields OK to Install, OK to Play On" by concluding—

"Because the release is based on the 2008 Report, links to the 2008 Report and refers to the 2008 Report's findings about lead, the press release ... is not overbroad."

Rebuttal: Mr. Ray's response appears to rest on the fallacious assumption that because the press release referenced the 2008 Report it could not be overbroad. Yet, Mr. Ray describes the 2008 Report as "limited study for addressing the questions raised in early 2008, specifically about lead in artificial turf products."

Since the 2008 Report was very narrowly limited, confined to one of many potential exposure pathways and based upon a few samples, a conclusion that all synthetic turf is "OK to Play On" is obviously overbroad. Such a sweeping conclusion could clearly not be supported by the very small slice of information on which it was based.

The agency IQA Guidelines provide that:

"In the dissemination of public information about risks, the Agency will ensure that the presentation of information about risk effects is comprehensive, informative, and understandable."

As explained above, the press release violated this dictum. The information provided to the public in this instance was, by its nature, far less than comprehensive. The sweeping press release conclusions were not informative to the point of being outright misleading.

Relief Requested

By this appeal, PEER again requests the relief detailed in our original complaint that CPSC –

- (a) Remove all materials from the website (including the 2008 Report, the Press Release, and the accompanying video), particularly the reassurance that fields are “OK to install, OK to play on”;
- (b) Disseminate warnings regarding the unknown risks of lead exposure from artificial turf, as well as exposure to other chemicals and contaminants; and
- (c) Commission an independent study that tests a large sample of older and newer fields, indoor and outdoor fields, all parts of the field, different exposure pathways, and different contaminants.

Conclusion

As discussed above, CPSC’s study upon which the 2008 Report and press release was based was cursory and flawed. CPSC’s statement that artificial turf is “OK to install, OK to play on” and the conclusion that children are not at risk from lead exposure from the artificial turf fields are unquestionably overbroad in light of the limitations of the study detailed above.

By making these conclusions the CPSC gives the green light to communities to install and use these fields. This could lead to increased lead and other toxin exposure in children.

The agency’s IQA Guidelines state that their purpose is to further the agency mission which it summarizes as “CPSC works to save lives and keep families safe.” That purpose is also served by our complaint and we would request that this appeal be granted.

Respectfully submitted,

Jeff Ruch
Executive Director