

**HB 582 - Prohibit Burning of PVC Plastic**

**Testimony of Leif Griffin**  
**Smurfit-Stone Container Enterprises, Inc.**

- My name is Leif Griffin and I'm the Environmental Manager at Smurfit-Stone Container Enterprises Inc., a pulp and paper mill located near Missoula, MT. I'm a Montana native, born in Butte and educated in Montana. I feel very fortunate to be able to work as a chemical and environmental engineer in one of the few manufacturing facilities in Montana.
- For those of you who may not be familiar with our plant, the Missoula Mill produces brown Kraft linerboard, which is the material that makes up the inside and outside layers of a corrugated container (box). Smurfit-Stone employs approximately 500 employees, with a total payroll including wages and benefits of over \$46,000,000 in 2004. Also, during 2004, the Missoula mill paid over \$2,250,000 in property taxes to Missoula County, and contributed to Montana's economy by spending over \$95,000,000. During 2004, the Missoula Mill and it's employees contributed over \$124,000 to the United Way, and was the largest contributor, I understand, in the entire state. In addition, Smurfit-Stone has contributed \$90,000 over the last 5 years to the Montana Energy Share Program – both of these commitments to Missoula and Montana of which we all are very proud.
- I'm here today in opposition to HB 582. Depending upon the final language of the bill, it could prohibit the Missoula Mill from burning for energy recovery "rejects" containing plastic, including less than 5 percent PVC plastic, from a plant that recycles old corrugated containers (referred to as OCC) into new linerboard. The Missoula Mill has been safely recycling these materials in compliance with specific air permit limitations since 1990. The only current alternative would be to landfill these reclaimable materials at a cost of about \$300,000 per year. This is not necessary or reasonable.
- As both EPA and DEQ have concluded, there is no scientific evidence or human health study that shows adverse affects to human health or the environment at the very low emissions levels resulting from burning these rejects containing plastic. The concern over burning the OCC rejects containing plastic, specifically PVC, is the potential formation of dioxins and furans during combustion of the rejects in the mill's multi-fuel boiler. Total annual emissions of dioxins and furans from the entire Missoula Mill, including the multi-fuel boiler, for 2003, as reported to the EPA, are about 1.2 grams (0.04 ounces) per year (total mass basis) - with no emissions of

2,3,7,8-TCDD – the dioxin of most concern. There is no evidence of adverse health effects at these low exposure levels.

- Exposure levels to dioxins and furans are down dramatically. According to EPA, industrial releases of dioxin and furans have decreased by over 90% since the 1980's. Now, the biggest unregulated contributors are from burning yard waste and other fires. To put the issue in perspective, according to the EPA, approximately 110 micrograms dioxins/furans per ton biomass is emitted during forest fires, as compared to only 6.24 microgram/ton (mean) from wood combustion in industrial boilers.
- As you might imagine, this is a complex issue with considerable history. I have prepared a written summary of a few important points, which I will provide to the Committee for its reference. As you will see in reviewing this information, removing OCC rejects from the Missoula's Mills recycling program would have no measurable impact on dioxin and furan emissions, and would have a very measurable impact of consuming limited landfill space with a recyclable product.
- In closing, I would simply like to say that a ban on burning of all plastics for a source that is already regulated by the DEQ's air quality permit for the facility would sabotage an effective and safe recycling program, since there is no way to separate the small portion of PVC in the rejects. As a result, the Missoula Mill would be forced to start landfilling the OCC rejects at a substantial annual cost with no health or environmental benefit. This is an unacceptable alternative to energy recovery and an unnecessary waste of landfill space. I urge you to reject HB 582.

## Summary and Supplemental Testimony

- 1) Smurfit-Stone's Missoula mill recycles nominally about 500 – 525 tons of old corrugated containers (OCC) a day. We characterize the amount of OCC recycled in one year as completely filling the Washington-Grizzly stadium in Missoula. We are proud of our OCC recycling and think that it is a good thing.
- 2) It is important to realize that the OCC bales shipped to the mill contain unwanted products that people throw out with their boxes, including plastic and wire. The mill does not want the plastic and wire - because we are paying for these useless materials, and it is expensive to remove in the process.
- 3) Also, it is important to understand that the PVC plastic comprises less than 5 percent of the mill's total burnable OCC rejects, and that the mill has no way to separate the PVC from the rest of the rejects. This is typical of many industrial and business processes, both large and small. Consequently, HB 582 would make the mill start landfilling the OCC rejects. This would impose substantial additional costs and unnecessarily use up landfill space.
- 4) The mill has taken proactive efforts to reject OCC bales containing the undesirable material including plastic. We have set-up an inspection program to check the bale quality, and we reject bales that have unacceptable levels of contaminants, such as plastic. The mill's inspection program has resulted in better OCC quality received at the mill and a decrease in OCC rejects produced—but it can not eliminate all plastic material.
- 5) The mill has spent almost \$150,000 performing research with the Diversified Plastic Inc., located in Missoula, to develop products, such as shopping cart wheels, out of the OCC rejects. The mill wants to see additional alternative use of the OCC rejects.
- 6) Emissions from burning OCC rejects containing plastic are already strictly limited by the mill's air quality permits. The Department of Environmental Quality performed a risk assessment evaluating the potential risk from burning the OCC rejects containing plastic and found the risk to be acceptable prior to issuing these permits.
- 7) The OCC rejects containing plastic are burned in a multi-fuel boiler, a major source of steam for the mill, and comprise only 2% of the total fuel. On average about 60 percent of the rejects are plastic and only 5% of the plastic is PVC. The boiler burns primarily hog fuel – a non-fossil fuel that would otherwise have to be land-filled. The multi-fuel boiler

operates at about 2,000 F, which is higher even than the EPA's recommended temperature for most incinerators, and has air pollution control, consisting of multi-clones and venturi scrubbers, and continuous emission monitors. Boiler emissions recorded by these continuous monitors are required to be reported routinely to the DEQ and the EPA.

- 8) The concern over burning the OCC rejects containing plastic, specifically PVC, is the potential formation of dioxins and furans during combustion. Total annual emissions of dioxins and furans from the entire Missoula Mill, including the multi-fuel boiler, for 2003, as reported to the EPA, are about 1.2 grams (0.04 ounces) per year (total mass basis) - with no emissions of 2,3,7,8-TCDD – the dioxin of most concern. There is no evidence of adverse health effects at these low exposure levels.
- 9) The EPA (Versar Study in 1987) determined that fuels with chloride content less than 3,000 ppm do not effect the formation of dioxins and furans. Consequently, since the chloride content is less than 200 ppm (January 2004 samples) in the multi-fuel boiler, removing the OCC rejects will have no effect on dioxin and furan emissions.
- 10) It is important to realize that exposure to dioxins and furans have been decreasing over the last 30 years – as a result of existing regulation of industry. The EPA estimates that industrial releases have decreased by greater than 90 percent since 1980 levels.
  - o For example, emissions from U.S. municipal and medical waste incinerators have decreased from 23 pounds dioxin TEQ in 1987 to 0.75 ounces in 2002.
  - o The paper industry has spent over \$1 billion to decrease releases of dioxins/furans and other chlorinated compounds from chlorine pulp bleaching (from 41 ounces in 1988 to less than 8 ounces (TEQ) today)
  - o The Missoula Mill shut down it's own bleach plant in 1999.
- 11) Some Sources Of Dioxins/Furans
  - o Crematoria
  - o Forest fires and volcanoes
  - o Commercial and municipal waste incinerators
  - o Combustion from burning fuels (coal, oil, wood)
  - o Elemental chlorine bleaching at pulp and paper mills (free chlorine eliminated as part of Cluster Rule)
  - o Cigarette smoke
  - o Vehicle emissions
  - o Burning of residential/yard waste and other fires.

12) At present, the biggest unregulated contributor of dioxins and furans is from burning of yard waste and other fires. Actually, one of the best ways to reduce dioxins and furan emissions is to prevent forest fires. According to the EPA, approximately 110 micrograms dioxins/furans per ton biomass is emitted during forest fires, as compared to only 6.24 microgram/ton (mean) from wood combustion in industrial boilers.

13) In closing, since there is no way to separate the small portion of PVC in the OCC rejects, this bill would make the Missoula Mill start landfilling the OCC rejects at a substantial annual cost, which is an unacceptable alternative to energy recovery and an unnecessary waste of landfill space. Also, the emissions from burning the OCC rejects containing plastic are already regulated by the Mill's air quality permits, and removing them as a fuel source will make no difference in the potential formation of dioxins and furans. In short, HB 582 creates a **burden without a benefit**.