



GENERAL RECYCLED

a division of Sparlings Sportwear Mfg

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The Four R's of Recycling Fire Resistant Garments in the Industrial Work-Wear Market Place...

Recover, Recycle, Re-use, Reduce

Ownership Group

- **Ted Parker/Larry Suzuki/Dave Kasper**
- **Head Office – Vancouver, BC**
- **Recycling Facility – Leduc, AB**
- **Warehouse – Montreal, QC**

In the Beginning...

- **Quebec City**
- **how we got started**
- **our working group**

Recover

- **source material**
- **“end user” collection?!**
- **aramids vs FR cotton**
- **warehousing and sorting**

Recycle

- **cleaning before disposal**
- **wet wash vs dry cleaning**
- **garments returned to Leduc facility**
- **garments sorted and stripped**
- **brass components**
- **hi-vis reflective material**
- **garments shredded back into fibre**

Re-use

- **recycled fibre spun into yarn (our own intimate blend)**
- **recycled yarn is woven into fabric**
- **garment manufacturing**
- **recycled garments are recyclable again**

Reduce

- **Alberta – estimated 1000 tons of FR garments disposed of each year...estimate 500 tons of which are aramids**
- **aramids should not be incinerated (Benzene rings)...currently, landfill is the only option**
- **recycled garments can be recycled again**

Challenges Along the Way

- **dry cleaning vs wet wash**
- **recycling yellow hi-vis reflective material**
- **FR cottons...what to do with them?**
- **air jet vs ring spun yarn**
- **short staple fibre**
- **yarn dye vs piece dye**
- **noxious fumes**

Where are we Today?

- **current fabrics, 1st, 2nd and 3rd edition**
- **the look...how important is it?**
- **meeting industry standards**
- **field trials**
- **other recycled FR fabric options**
- **no need to landfill aramid coveralls**
- **closing the loop**

Environmental Impact

- no need to landfill aramid coveralls/garments
- viable and simple “green” initiative for the oil and gas sector
- recovering oil in the dry cleaning process
- recycled garments can be recycled again and again and again.
- cost savings
- good corporate citizens
- environmental message

Dr. David Boyd

“This is a step in the right direction, applying key principles of sustainability like reduce, re-use and recycle. Every step in the right direction helps.”

**David R. Boyd, Ph.D., J.D.
Adjunct Professor, Resource and Environmental
Management, Simon Fraser University**

www.davidrichardboyd.com

LATEST BOOKS:

[The Right to a Healthy Environment: Revitalizing Canada's Constitution \(UBC Press, 2012\)](#)

[The Environmental Rights Revolution: A Global Study of Constitutions, Human Rights, and the Environment \(UBC Press, 2012\)](#)

Questions?

