

Copper Wire Recycling

This document identifies the provincial regulations that apply to the processing of copper wire in Saskatchewan.

If you have any questions regarding this topic, please contact the Ministry of Environment at 306-933-7940.

To report the burning of copper wire, please call the 24 hour – toll free TIP line at 1-800-667-7561.

All calls are confidential.

General

There is a market for recycled copper wire. Metal recycling and salvage companies across the province buy old copper wire and send it for re-refining or smelting. Recycling means less new material is needed for manufacturing and, at the same time, it means less copper is being dumped into our landfills.

However, some of the old copper wire is covered in insulation which must be removed before the copper wire can be recycled.

The insulation can be safely removed by a mechanical process that cuts the insulation and strips it from the copper wire or by processing the insulated wire in an approved incinerator.

Do Not Use An Open Fire to Burn the Insulation Off Copper Wire

The use of open fire results in low-temperature burning, a process that does not reach the same temperatures as those in an approved incinerator. The high temperature in an approved incinerator will not only remove the insulation, it will also destroy the contaminants found in the insulation. Low-temperature burning releases contaminants into the air, water and soil including dioxins, furans, polycyclic aromatic hydrocarbons, particulate matter, heavy metals (such as lead, arsenic, selenium and cadmium) and other pollutants. The contaminants often end up in the air, in the ash on the ground or as pollutants in the soil and water. Wind or water may carry the pollutants significant distances from a burn site. Elevated concentrations of the pollutants

are harmful to human health and the environment. The effects of these pollutants on people can be chronic or acute and can range from lung irritation to cardiac problems or even an increased risk of cancer.

Both the recycling industry and the Ministry of Environment share the objective of safe workplaces and economically-practical business practices that protect public safety and enhance environmental stewardship. Recycling industries in Saskatchewan are already taking action to curtail the acceptance of copper wire processed by low-temperature burning. The wire has a distinct appearance and is easy to identify. This should assist in reducing the practice of low-temperature burning of copper wire for recycling.

Do Not Accept Burned Copper Wire

Metal recyclers and salvage yard operators should not accept copper wire where there are signs or suspicions that the copper wire insulation has been burned off. Knowingly purchasing or receiving burned copper wire may result in enforcement action or incurring liability should contamination occur. Storage of burned copper wire could be a violation of *The Hazardous Substances and Waste Dangerous Goods Regulations*.

Operators should refuse receipt of burned copper wire and report the attempted sale to the ministry.

(continued next page)

Applicable Legislation

Section 5 of *The Environmental Management and Protection Act, 2010* prohibits the discharge of a substance into the environment. Burning plastic in an open fire is expressly prohibited under section 11(3)(d) of *The Clean Air Regulations*.

Although this prohibition is subject to a valid and subsisting permit to operate an industrial source, incinerator or fuel burning equipment, the Ministry of Environment, generally speaking, will not issue such a permit except in rare and highly regulated circumstances. This is because of the known health and environmental hazards associated with the incomplete combustion of plastics.

The Hazardous Substances and Waste Dangerous Goods Regulations may apply to the wire or ash derived from processing. This regulation requires ministry approval for storage. Testing to date indicates a high likelihood that elevated levels of hazardous substances or waste dangerous goods can be expected in association with copper wire burning.

Sites found to contain a substance that may cause, is causing or has caused an adverse effect to the environment, or is harmful to human health, may be designated as contaminated sites. The sites may also be subject to other forms of enforcement and/or remedial clean up orders. The cost of cleaning up a site can be substantial and the ministry will take steps to recover the costs associated with cleaning up a contaminated site.

If the Ministry of Environment becomes aware of operations contravening provincial regulations the recycler may be subject to enforcement measures including prosecution and, if found guilty of an offence under *The Environmental Management and Protection Act, 2010* or *The Clean Air Act*, he/she may be subject to substantial fines and/or imprisonment.

More info?

Contact the Saskatchewan Ministry of Environment
Client Service Office at
Tel: 1-800-567-4224
(toll-free in North America)
or 306-787-2584.
Email: centre.inquiry@gov.sk.ca