

Creation of Facilities for effective management of scrap at railway units

All railway units involved in the maintenance of infrastructure generate scrap. This scrap can be classified into the following categories

1. Recyclable ferrous metal
2. Recyclable non-ferrous metal
3. Recyclable plastic / polymer
4. Recyclable glass
5. Non-recyclable rubbish

The scrap generation and inadequate system of removal results in creation of stockpiles of unwanted material. One the major factors which hinders the rapid removal of scrap is the cost of transportation which is the same for a good or bad material. Compounding the problem is the fact that scrap is never homogenous, which causes increase in bulk making the cost of transport even greater

For better management of scrap the following needs to be attended:

1. The cost of transport needs to be reduced
2. The scrap should be processed partially to create a more desirable, easily transportable and conveniently recyclable product.
3. The non-recyclable rubbish needs to be disposed off at the railway premises (this is also the requirement of the law under EPA-86) this is possible by incinerating the same and disposing of resulting soot in landfills as permitted.

For the recyclable material processing facilities need to be created at the convenient locations (old workshops in the vicinity may be ideal) for initial processing. This will include:

1. Compactors / pulverizers
2. Material sorter / washing systems
3. Melting and casting process systems

This will be required for each type of recyclable material. A desirable end product would be billets of the raw material, which can be then transported easily for further processing.

Most of the old mechanical workshops of the Indian Railways had / have foundries. These can be converted to form recycling facilities for scrap management.