Figure A.1

Typical Process Diagram for Electrical and Electronic Waste and CRT Recovery

Legend:
- Material Output
- Critical Inspection Points
- Process

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Manual Sorting

Broken CRTs?
- Yes
  - Potential Reuse of equipment?
    - Yes
      - Test Equipment
      - Pass → Ship for reuse
    - No
      - Disassemble
  - No
    - Pack for disposal to landfill

Dirty CRTs

Disassemble

Clean CRTs

Plastic Parts

Metal Parts

Further Recycling

Monochrome CRTs

Sort Clean CRTs

Cut CRTs

Panel Glass

Funnel Glass

Electrical/Electronic Equipment

Yes

No

Yes

No
Legend:
TRU: Thermal Reduction Unit
- Material Output
- Process
- Treatment Method

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Typical Process Diagram Fluorescent Lamp Processing
Figure A.3

Legend:

Material Output
Process

Typical Process Diagram for Glass Recovery/Recycling (Pretreatment)
Typical Process Diagram for Glass Recovery/Recycling (Refining/Shaping)

Legend:
- Material Output
- Process

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Figure A.4

Pack and Store/Ship

Pretreated cullet (refer to Figure 9) → Batch Storage of Cullet → Melting Furnace → Refiner → Glass Forming → Annealing → Inspection and Testing → Finishing (Stage 1 - Decorating) → Finishing (Stage 2 - Coating) → Glass Product

Cullet Crushing

Refer to Figure 9
Legend:

- Material Output
- Process

Typical Process Diagram for In-Vessel Composting

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Figure A.5

Drawn: FEW
Checked: L.Y.
Scale: NTS
Date: Feb 2004
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Typical Process Flow for Inedible Rendering

Legend:
- Process
Electric Arc Furnace

Teeming

Soaking / Forming

Ingots

Bloom, billet, slab rolling

Scarfing

Reheat Furnace

Finished Product

Legend:

Material Output

Process

Electricity

Alloys

Flux

Slag

Steel

Scrap Ferrous Metal

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Typical Process Diagram for Secondary Steel
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Typical Process Diagram for Secondary Aluminum Processing (Pretreatment)
Typical Process Diagram for Secondary Aluminum Processing (Melting / Refining)
Typical Process Diagram for Lead-acid Battery Processing / Secondary Lead Melting (Pretreatment)
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Typical Process Diagram for Secondary Lead Melting (Melting)

Legend:
- Material Output
- Process
Typical Process Diagram for Secondary Zinc Processing (Pretreatment)

Legend:
- Material Output
- Process

Figure A.12

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BMT
Typical Process Diagram for Secondary Zinc Processing (Melting)

Legend:
- Material Output
- Process

Sweated Scrap (MFIT or Ingot) → Kettle (Pot) Melting → Fuel

Kettle (Pot) Melting → Crucible Melting → Fuel

Crucible Melting → Reverberation Melting → Fuel

Reverberation Melting → Electric Induction Melting → Electricity

Electric Induction Melting → Molten Zinc
Typical Process Diagram for Secondary Zinc Processing (Refining and Alloying)
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Typical Flow Diagram for Secondary Fibre Processing

Legend:
- Material Output
- Process

Waste paper (Post consumer, cutoffs)

Pulping

Cleaning

Flotation

Washing

Bleaching

Additives

Finished Pulp

Residual Contaminants

Hydrogen Peroxide

Air

Surfactants

Water

Chemicals

Water

Chemicals

Legend:

Material Output

Process

Figure A.15

NTS

Drawn

Checked

Date

Feb 2004
Virgin Pulp

Finished Pulp → Pressing → Drying → Calendaring → Finished Product

Legend:
- Material Output
- Process

Effluent (for treatment and discharge)

Air Emission (SOx, NOx, CO, VOC)

Typical Flow Diagram for Paper Production Using Secondary Fibre

Figure A.16
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Typical Process Diagram for Tyre Processing (Ambient and Cryogenic)
Inspection → Pressure Testing → Buffing → Repair → Cementing → Building

- Discards Unacceptable for Retreading
- Rubber Waste (powder)
- Rubber Solution or Extruded Rubber
- Bonding Rubber
- Precured Tread Rubber
- Tread Rubber
- Retread Tyres

Legend:
- Material Output
- Process

Typical Process Diagram for Tyre Processing (Retreading)

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