SAFE WORK PRACTICES
PLASTIC WELDING

**This information does not take precedence over OH&S. All employees should be familiar with the Saskatchewan Employment Act and the OH&S Regulations.*

1. PVC (polyvinyl chloride) ductwork is welded using a PVC filler rod heated with a hot air gun. The filler rod is used like the filler for oxyacetylene welding.

2. FRP (fiber reinforced plastic) is chemically welded. A solvent dissolves the two surfaces so that they melt together. The process involves mixing a resin, promoter and catalyst which react together. The reaction produces heat of over 360^0 F, enough to start a fire. Follow safety precautions for FRP welding:

    - Read the MSDS on any chemical or other material you use.
    - Check all chemical containers for leaks or cracks.
    - Wear proper protective equipment when working with any chemical.
    - Follow the manufacturer's guidelines for mixing chemicals and their catalysts – many of them must be mixed in a specific order.
    - Make sure you have good ventilation when opening and using chemicals.

3. When transferring resins from drums, make certain the drums are electrically grounded to reduce sparks of static electricity.

4. When transferring resin to a smaller container, label the new container as required under WHMIS regulations.

5. Never experiment with the chemicals, catalysts or mixing ratios.

6. Make certain the proper class of fire extinguisher is available.

7. A sign should identify the area where FRP materials are being prepared.

8. Never dispose of a mixing container until the reaction has been completed and is no longer producing heat.