Memo

To: HAWC SI Team Members
From: Jesse Wirth
CC:
Date: 8/27/01
Re: Ordering and Manufacturing Procedures

In order to keep track of parts and materials ordered and to track and control cost, some procedures need to be followed to make project organization and management easier. Below are step by step instructions of the procedures we intend to follow.

Ordering Parts, materials, etc:

- Fill out the HAWC Purchase Request Form (POR)*
  
  When materials are ordered make sure that certification papers are requested. When "out of house" fabrication (e.g. welding) is required make sure that all applicable standards that need to be met are stated on the POR. Those standards should be included on the fabrication drawing that will be submitted to the manufacturer. If no standards are specified (but needed) submit an Engineering Order (which is covered later in this memo).

- Have the POR approved and signed by the Project Manager (PM)
  
  Note: No orders will be processed without the PM signature

- Submit POR to purchasing
  
  Note: ALL HAWC orders should be placed through:
  1. Judy Bausch
  2. Nancy Odalen (if Judy is not available)
  3. Jesse Wirth (if Judy AND Nancy are not available)

- After order has been processed Judy will file the original POR

A "Continuation Sheet" is also provided in case not everything fits on one page.
Receiving and storage of materials:
- Once materials are received make sure all the certification papers or any test reports (e.g. vacuum leak check, welding) are there.
- Clearly mark materials with the UC P.O. number AND lot number (or product number) to enable us to track them back to "their" certification papers.
- Store materials in a secured and lockable area (e.g. locked cabinet etc).
- Hand over certification papers to Ed Pernic for safe keeping and organization.

Manufacturing/Fabrication of parts
Once the material has been received and all the paperwork is in order, manufacture of the parts can begin.
- Make sure that only the materials specified are being used.
- Mark fabrication drawing with UC P.O. number AND lot number (or product number).
- Mark any material deemed sufficiently big for re-use with UC P.O. number AND lot number (or product number) and return to (locked) storage.

Remember, any materials not labeled can not be traced to their certification papers and can not be used for anything that requires certified materials.
- When part is completed return fabrication drawing to PM.
- Drawing will be revised and marked up with UC P.O. number and item number and saved as the "as built" drawing.

Engineering Order Form
At times it is necessary to make changes to drawings and/or schematics to clarify/rectify a mistake, dimension, requirement, specification, etc. To keep track of these changes, who initiated them and how to proceed, an Engineering Order Form (EOF) needs to be filled out.
An example of such an EOF might be the radius for a "cut" on a part that cannot be done with the available tool(s) but could be done if the dimension of the radius could be changed. The procedure would be:
- Fill out EOF describing what change is proposed and why the change is requested/required (i.e. no tool available). Marked up copy of drawing with the proposed change accompanying the EOF is acceptable.
- EOF must be reviewed and signed off (or rejected) by the designer
- EOF must be approved by the designer or PM
- If EOF is approved, drawing will be revised with the proposed changes and indicated in the "Revisions Box".
- Revised drawing will be re-submitted for fabrication
- Fabrication of part can start /commence

EOF's are also required if any mistakes happen during fabrication of the part (e.g. drill a hole in the wrong place). Instead of starting over it is possible that the part still can be used but the drawing will have to be revised