March 29, 1976

To: D. L. Aubuchon
    cc: W. R. Huntley

From: H. E. McCoy
      B. McNabb

Subject: Testing of 1/2-in.-Diam Hastelloy N Pipe

At the request of Dick Huntley, we have evaluated the welded Hastelloy N pipe from heat 2840-1-0125. Our evaluation consisted of pulling (longitudinally) two pieces of the pipe to failure. One piece was tested in the as-received condition and the other was annealed 1 hour at 2150°F prior to testing. Both samples exceeded the minimum strength requirement of 100,000 psi. However, the strained specimens were dye checked and the welds had numerous small cracks. Since these cracks extended to the ends of the specimens where the strain was small, it is likely that the cracks form after small deformations. Thus it is likely that most bending operations would be sufficient to form the cracks.

We recommend that this material be marked in a way to limit its use to low stress-strain conditions.

HEM:BM:kd