

**From:** WJ Shack <wjshack@anl.gov>  
**To:** Joe Muscara <JXM8@nrc.gov>  
**Date:** Fri, Jun 16, 2000 8:47 AM  
**Subject:** IP-2 NDE Problem

Send this as a fax along with vugraf, but just in case fax gets lost before you get back, I wanted to follow up with email note.

Viewgraphs 6 and 7 of the May 3, 2000 presentation by ConEd ( "IP Unit 2 Low Row U-Bend Examinations, Jimmy Mark and Andy Neff) compare 1997 vs. 2000 setups applied to 1997 +Point U-Bend data (for R2C67 and R2C5). It appears that the purpose of this comparison is to show that the 2000 set up leads to R2C5 crack detection but not the 1997 setup and that both setups applied to R2C67 data reveal the crack clearly. Sasan and Dave have pointed out an apparent weakness in the ConEd explanation for why the R2C5 crack was missed. If you go to their viewgraph comparing the 1997 and 2000 setups (Slide 7 attached), they are suggesting that the difference in setup makes a big difference in the resulting Lissajous figure, and hence in the decision as to whether or not there is a crack. However, in slide 7 (R2C5) they are not examining the Lissajous figure at the same axial location whereas they are in slide 6 (R2C67). Note that the 2000 signal is analyzed at the location of the two (very small) signal blips, whereas the 1997 signal is analyzed at a different location. Sasan says that when he analyzes the data using the 1997 and 2000 setups, there is very little difference in the Lissajous figures when he takes them at the same location. Give Dave or Sasan a call to discuss further.

D/23

## Argonne National Laboratory Facsimile Transmission

Date: 6/15/00

Send to:

Dr. Joseph Muscara

Telecopy Number:

7-1-301-415-5074

This transmission consists of 1 pages (excluding the cover sheet).

### Subject/Message: IP-2 NDE Vugrafs (5/3/2000)

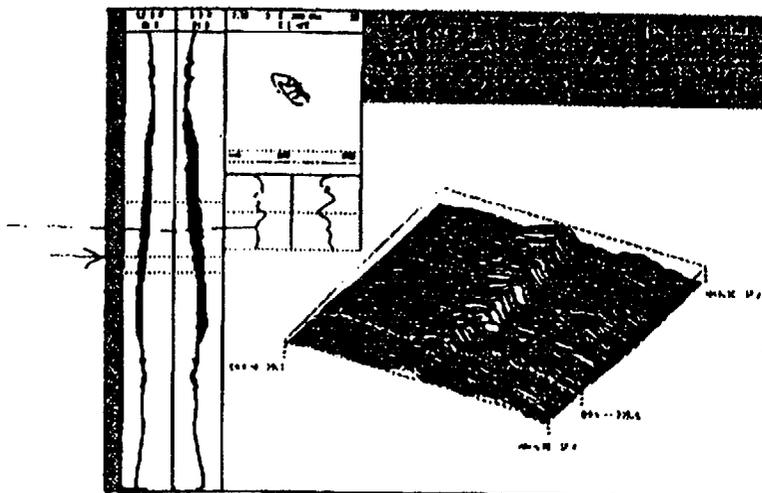
Viewgraphs 6 and 7 of the May 3, 2000 presentation by ConEd compare 1997 vs. 2000 setups applied to 1997 +Point U-Bend data (for R2C67 and R2C5). It appears that the purpose of this comparison is to show that the 2000 set up leads to R2C5 crack detection but not the 1997 setup and that both setups applied to R2C67 data reveal the crack clearly. Sasan and Dave have pointed out an apparent weakness in the ConEd explanation for why the R2C5 crack was missed. If you go to their viewgraph comparing the 1997 and 2000 setups (Slide 7 attached), they are suggesting that the difference in setup makes a big difference in the resulting Lissajous figure, and hence in the decision as to whether or not there is a crack. However, in slide 7 (R2C5) they are not examining the Lissajous figure at the same axial location whereas they are in slide 6 (R2C67). Note that the 2000 signal is analyzed at the location of the two (very small) signal blips, whereas the 1997 signal is analyzed at a different location. Sasan says that when he analyzes the data using the 1997 and 2000 setups, there is very little difference in the Lissajous figures when he takes them at the same location. Give Dave or Sasan a call to discuss further.

Message From: William J. Shack  
Argonne National Laboratory  
Building 212  
Argonne, IL 60439  
Telephone: (630) 252-5137  
Fax: (630) 252-4798  
Verification: (630) 252-4930  
Electronic Mail: wjshack@anl.gov

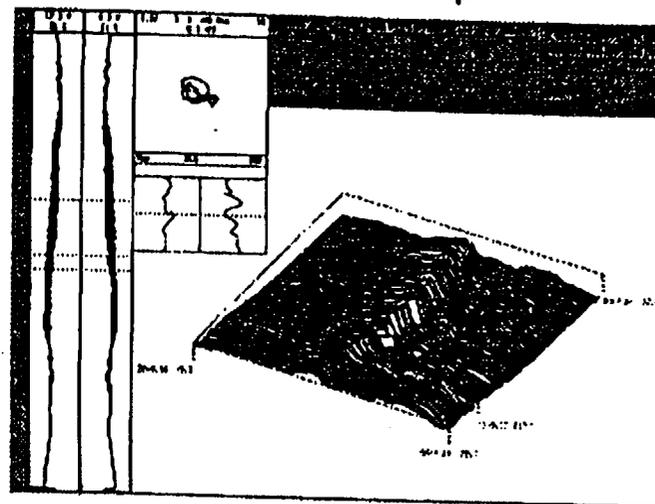
Argonne National Laboratory

# SG 24, R2C5 - 1997 Midrange +Point Data

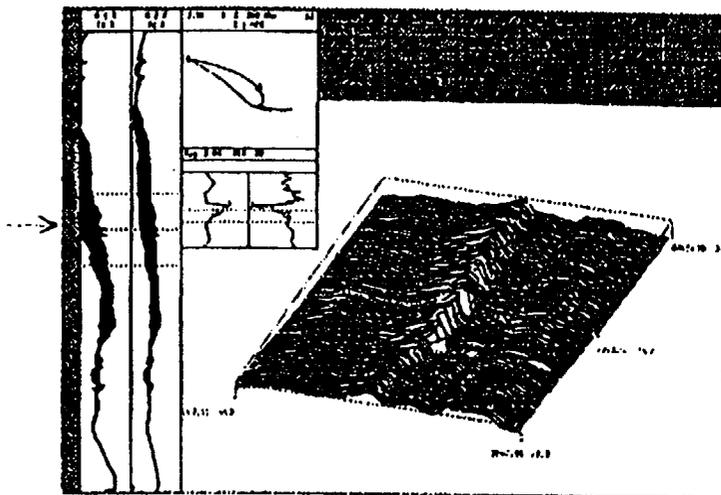
300 kHz 1997 Setup



400 kHz 1997 Setup



300 kHz 2000 Setup



400 kHz 2000 Setup

