

# **NOTICE**

**CERTAIN DATA  
CONTAINED IN THIS  
DOCUMENT MAY BE  
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HW--7-2226

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51715

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TO: HOOD WORTHINGTON

100-D UNIT PURGE  
AUGUST 3, 1945

+ one unclassified attach.

### INTERPRETATION

The unchilled section of the 100-D unit was purged with 100 ppm. Super Cel for thirty to thirty-five minutes on August 3, 1945, following a high tank test.

### CONCLUSIONS

1. Riser flow rates indicated slight plugging of the 50-mesh header screens during the high tank test and severe plugging during the purge.
2. The pressure drop recovery in the outer orifice zones was slightly less than normal. This may have been due to the header screens withholding some of the turbidity particles.

### DETAILS

Prior to the purge, a test was made of the operation of the far high tank by reducing the process water pressure in "A" riser below the static head in the high tank. This permitted water from the high tank to flow through the check valve leading to "A" riser and into the unit. This test was continued until half of the high tank was emptied. Riser flow rates indicated that the 50-mesh header screens off of "A" riser became slightly plugged during the test. It was felt desirable to remove any foreign material which may have settled out in the tubes during this test and to reduce the amount of pressure drop film in the tubes by purging the unchilled section of the unit.

The solids feed was started to "D" riser at 10:35 A.M. and to "A" riser at 10:40 A.M. and was stopped at 11:10 A.M. The flow rate for "A" riser was about halved during the purge, indicating severe plugging of the 50-mesh header screens. All but the top and the bottom screens off of "A" riser were replaced following the purge. The plugged screens upon examination revealed fairly large amounts of Super Cel but only traces of reddish brown material which may have been rust from the high tank test.

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BY AUTHORITY OF RLO-CG-4  
S.E. Gydesen 5-1-90  
BY J. Davis DATE 11-1-90

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MASTER

Hood Werthington

8-15-45

The pressure drop data for Panallit tubes before and after the purge at 280 MW power are summarized in the attached table. The pressure drop improvement was slightly less than normal for this section of the unit. This was probably due to the 50-mesh header screens withholding a considerable quantity of the Super Col.

C. P. KILDER  
TECHNICAL DEPARTMENT

Per

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CPK

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**PANELIT DATA**  
**PRESSURE DROP - PSI ABOVE JANUARY 3RD BASES**

	<u>0.200" Zone</u>	<u>0.175" Zone</u>	<u>0.140" Zone</u>
Before Purge (August 2)	13	26	42
After Purge (August 8)	4	13	27

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**END**

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