6303 U-003-307 .3

NEW SCRAP (UAP) PIT INVESTIGATION (USED AS A REFERENCE IN OU1 RI)

03/03/58

CARVITTI NELSON
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MEMO

Dsa

File C-

6303

NATIONAL LEAD COMPANY
OF OHIO

March 3, 1958

SUBJECT: NEW SCRAP (UAP) PIT INVESTIGATION

TO: M. S. Nelson

FROM: J. E. Carvitti

On February 20, 1958, a meeting was held in the Engineering Conference Room to discuss the problem of the new scrap (UAP) pit with the following persons in attendance: H. Beers, M. Boback, C. Chapman, P. DeFazio, R. Heatherton, A. Kreuzmann, W. Manser, G. Miller, J. A. Quigley, E. Riesenberg, W. Strattman, L. Williams, R. Wolf and the writer presiding.

The meeting was opened with a brief review of the questions discussed in the previous meeting, with little discussion pertaining to any subject other than the topic of effluent disposal to the river.

R. C. Heatherton discussed his suggested recommendations of 25 ppm solids in the effluent to the river at manhole #175 and on a minimum river flow of 250 cfs. He explained that 25 ppm of solids in the effluent would give the satisfactory or desired "activity" of 0.22 d/m/ml going to the river. This figure of 0.22 d/m/ml is a figure from a handbook and is accepted by the State of Ohio. It was recommended that R. C. Heatherton find the low river flow frequency during the specific times that the river was below 250 cfs and/or over 250 cfs but below 500 cfs for the years 1956 and 1957; then he should recalulate his present data using the higher minimum river flow rate other than 250 cfs, if the minimum rate is over 250 cfs.

Upon obtaining the new data; Dr. Quigley will advise Management of the findings and they will consult with the State on what can be done. This problem can be approached by having the State advise us on the present data which they now have or give to the State a new recommendation on how NLO would like to maintain the effluent to the river. Regardless of how the recommendations are presented to the State, the problems or items to be considered are:

a. What minimum river flow is NLO going to be required to use for our design calculations for the removal of solids i.e. 250 cfs as a minimum river flow rate, a several years average, a 21 years average minimum flow rate, etc.

b. What will be the solids requirement in ppm for the design calculation.

Based on the answer for these two items, then an economic evaluation will be made for the process to be employed in solids removal from the effluent stream and an idea letter can then be drafted. In addition to the above discussion several items were mentioned:

a. Approximately 30 - 40,000 gal/ day of slurry is pumped from the General Sump to the new scrap (UAP) pit with the solids varying from 2½ to 10% (wt) and these solids do not settle very readily.

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Starting early this month, approximately 200,000 [illegible] of solids from the UAP process in the Recovery Plant will be [illegible]ed to the pit each month.

b. An answer to what ppm solids in the liquid being pu[illegible] from the chemical pit is being determined. L. William is to [illegible]mit a sample to R. C. Heatherton.

c. An investigation will be made to check the "activity" of the material from the UAP process in the Recovery Plant, W. Manser is to submit a sample to R. C. Heatherton.

d. Several methods were suggested on ways to clarify the effluent going to the river. These will be discussed at a later date.

e. The SOP for the operation of the chemical pits has been revised and will be out for distribution in early March.

f. W. J. Strattman has recommended neutralization of all the raffinate with solids removal through filtration or settling and transfer of filtrate through the General Sump.

g. An Engineering Request was submitted to investigate the need of a new scrap pit.

h. The conditions and status of the pits were discussed by L. Williams and the writer.

i. Dr. Quigley explained "activity" figures and also discussed the meeting with the State.

No definite conclusions or answers were given on last months meeting and additional information will be required before the next meeting. All unanswered topics of the previous meeting will be carried over for next meeting.

J. E. Carvitti
Residue Committee Chairman

JEC/bmc

cc: H. M. Beers
K. Boback
C. R. Chapman (P-20000-17)
F. L. Cuthbert
P. O. DePazie
R. C. Heatherton
A. Kreusmann
W. Manser
O. P. Miller
J. A. Quigley
E. Riestenberg
W. A. Smith, Jr.
A. Stewart, Jr.
W. Strattman
L. Williams
R. B. Wolf

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Residue Files