TREATMENT OF FINDETT'S PYDRAUL RECLAIM PROCESS LOSS

Presently Findett Service Company is using Attapulgus Earth to remove acidic components from used pydraul. By this method, a large amount of fluid is lost in processing. Therefore, Findett is planning to change to a caustic wash system. This also is necessary in reclaiming phosphate ester fluids since earth treatment will not remove phenolics as well as caustic wash.

By changing to this treatment system, Findett's yield loss is expected to change from 8% to 3%. Based on a total annual volume of 300,000 gallons, there will be 9000 gallons of pydraul lost in the process.

The 9000 gallons of pydraul will be removed from the process in two forms:

1. 4500 gallons in 1.00 $\overline{M}$ to 1.25 $\overline{M}$ gallons of water as a result of the caustic wash.

2. 4500 gallons in solids consisting of:

   A. 45,000# of filter aid.

   B. 20,000# of tramp dirt (mostly graphite, clay, etc.).

   This is a total of 110,000# of solids to be disposed of and is 41% pydraul.

   It is feasible to dispose of the above amounts of pydraul as follows:

   A. Pydraul in water - a settling basin with a residence time of 10-14 days and a semi-permanent bottom can be constructed for approximately $25,000. In this basin, about 4400 gallons of pydraul will settle quickly to the bottom and can be drained off and incinerated. This leaves 100 gallons in the water or less than 100 ppm. The use of straw filters can reduce this to 1-6 ppm. If necessary to reduce further, activated carbon filter bed can be added to the system to get into the PPB range.

   B. Pydraul in solids - this material can be broken down into a slurry and fed into our incinerator at the Krummrich Plant.

      The solids that must be destroyed consist of:

      - 110,000# from the process mentioned above (2).

      - 4400 gallons pydraul from bottom of settling basin.

- Straw from filter system in settling basin.

To feed these solids and semi-solids into the incinerator, they must be reduced to a consistency that can be fed through 1/8" nozzles. This can be accomplished by:

- Adding an in-line homogenizer-mixer into the input of the incinerator.

- Mixing with the proper amount of fluid to achieve the desired viscosity. Fluid can be an oil.

The in-line homogenizer-mixer is available from Gifford-Wood Co. in the range of 10 GPM to 2200 GPM and $1500 to $10,000 respectively. CED feels that the small unit would be applicable in this case. It is also felt that straw could be handled by this unit, however, it is recommended that some pilot plant work be done.

The approximate incineration cost for a year, operating as described above are:

1.	Pydraul in solid form	110,000#
2.	Pydraul from basin bottom	44,000#
3.	Pydraul on straw	1,000# (estimate)
	Total to be incinerated	155,000#

At a cost of 3¢/#, this is a total of $4,650.00.