

One laboratory series on Green GWD from Crude Green PC suggests that successful grinds can be obtained with considerably less Blancoil than is now employed in GP-511-D. It also appears reasonable to hope that products of considerably higher CPC concentration can be made if they are desirable.

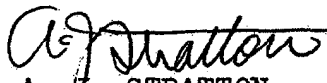
During this month, seven semi-works grinds were made directed toward GP-511-D. A number of variables were studied originally aimed at obtaining data for the design of a plant unit. However, it soon became evident that it would not be possible to specify conditions with any assurance without considerable study; so the immediate efforts at plant design have been discontinued. Nevertheless, these semi-works charges have given much valuable evidence and the work will be continued.

As noted above, efforts at filtration through porous stainless steel have been fraught with difficulties. One attempt with the use of a bayonet filter during agitation was not successful. On the other hand, dilution to approximately 2 or 2-1/2 times the original volume permitted very effective decantation through a filter press.

Viscosity and power consumption seem to be directly related, and the effectiveness of grinding seems to improve with high viscosity. This property has not as yet been adequately studied; marked changes in viscosity can be effected by varying the amount of water added and the temperature of grinding.

The rate of grinding in the semi-works has been somewhat disappointing, requiring 4-5 hours to approach the degree of grinding readily obtained in one hour in the lab unit. However, the pigment loading is considerably higher than a direct scale-up and the over all capacity seems to be satisfactory, if a four hour cycle can be achieved.

Near the end of the month, a shipment of Newport Crude Green paste was received and tested in the lab. This paste has been found to contain a substantial amount of hard pellet-like particles, some of them 1/8" or more in diameter, which are not ground in the normal cycles. It is suggested that these pellets probably originate in the rotating drier and have never been effectively extracted. In any case they must be eliminated if crude green paste is to be used in this process.


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