5. PREFLOTATION

5.1 Application

The purpose of the preflotation is to remove already free ink and dirt particles by binding them to bubbles created in the flotation cell diffusers with the help of a surfactant. Atmospheric air is drawn into the step diffusers and blended thoroughly with the stock. The so created foam loaded with ink and dirt particles flows over a weir and is either discharged or transferred to additional treatment.

5.2 Operation

Screened stock coming from the primary fine screen is diluted in the Flotation Cell No. 1 fan pump. Surfactant is added before the pump for good blending. The pump is speed controlled to maintain the inlet flow to Flotation Cell No. 1 at the optimum rate for maximum efficiency. Inlet pressure is monitored to give an indication of clogged diffusers.

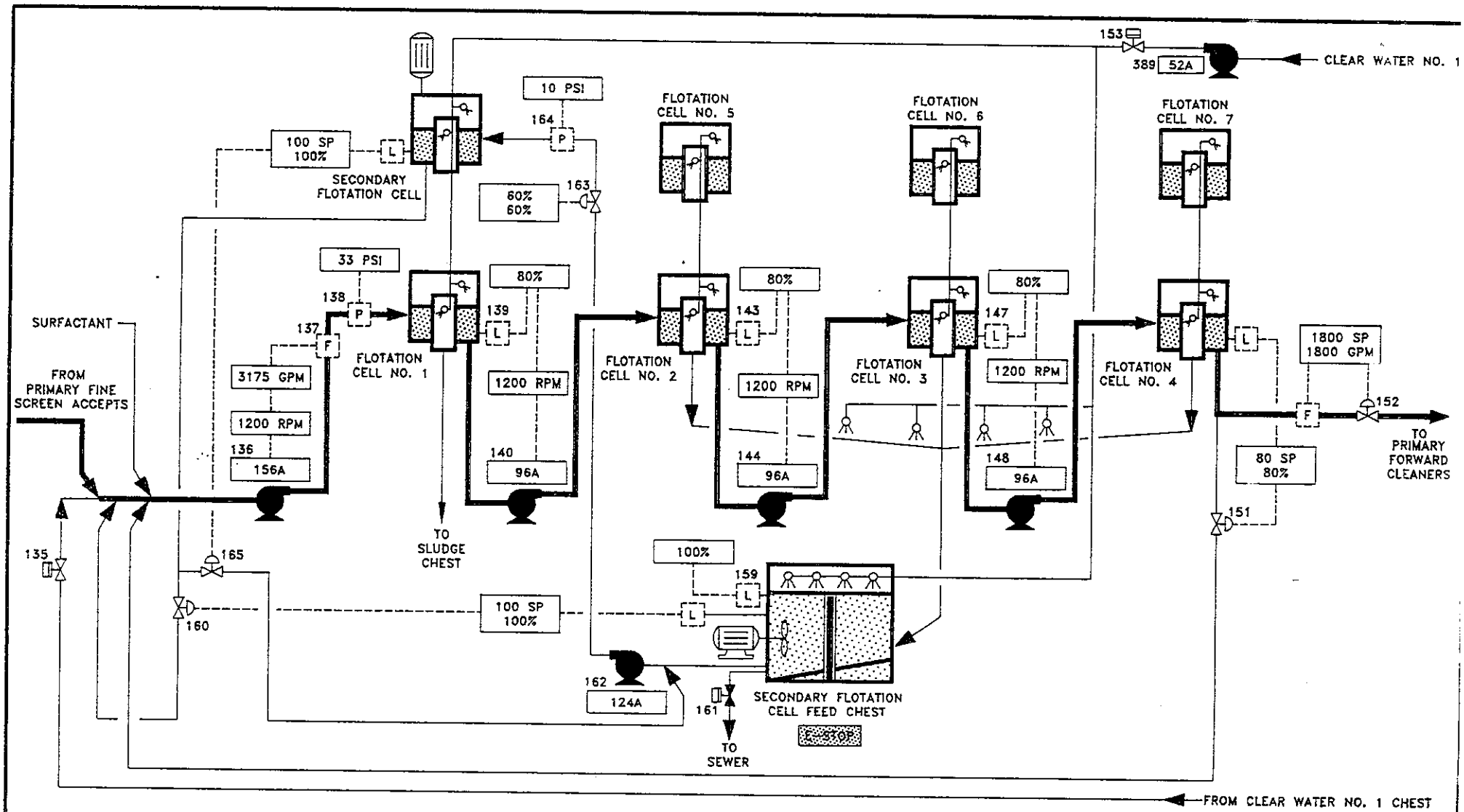
Stock from the first cell is pumped to Flotation Cell No. 2 with a speed controlled pump to maintaining the level in No. 1 Cell. Same function and controls apply for feed to No. 3 and No. 4 Flotation Cells. Accepts of Flotation Cell No. 4 are gravity fed to primary forward cleaner pump. This flow is controlled by the production setpoint. To maintain maximum efficiency, the flotation cells are hydraulically constant loaded by recirculating back to the Flotation Cell No. 1 pump suction. The level of Flotation Cell No. 4 is controlled with the recirculation amount.

Foam (rejects) of preflotation cells No. 2 to 4 and the post flotation cells is collected in large reject pipes and fed to the secondary flotation cell feed chest. An agitator and spray showers knock down the foam. From here the liquidized foam is pumped to the secondary flotation cell for fiber recovery. The flow to this cell is hand controlled and the pressure is monitored. The level of the cell is controlled by recirculation back to its

feed pump suction and the excess is fed back to the Flotation Cell No. 1 pump suction, thereby maintaining the level in the secondary flotation cell feed chest. The agitator of this chest is turned off and on by a preset minimum level.

5.3 Starting Sequence of the Group

The group has to be started in sequence with the fine screening, forward and reverse cleaner and the first washer (Vario Split No. 1) groups. *See instructions at the end of Chapter 7.*



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REFERENCES

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