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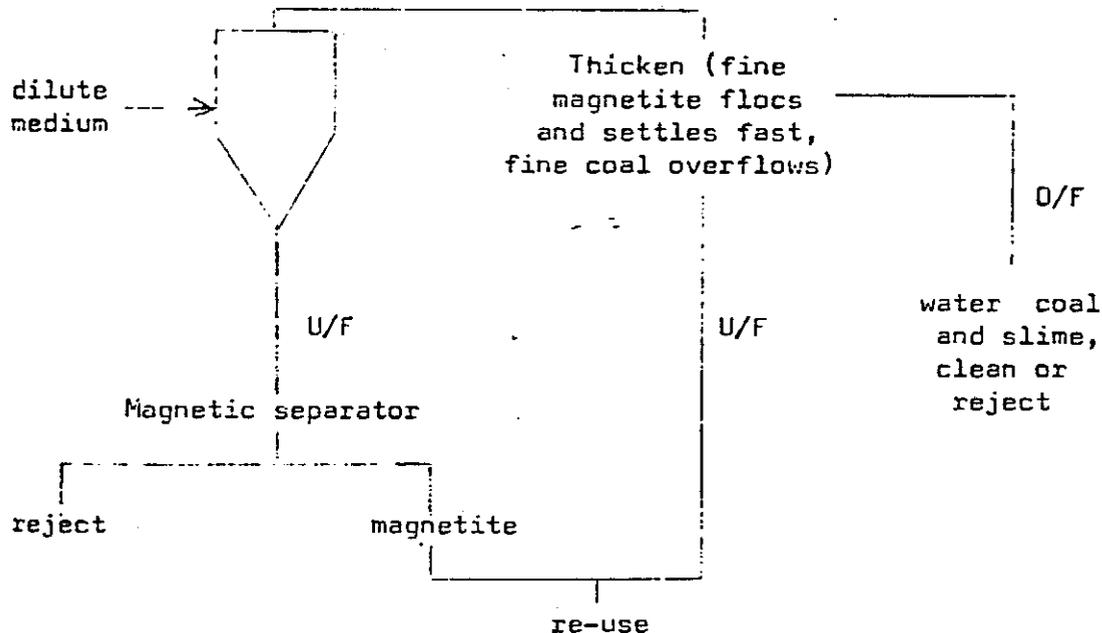
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The units are operated at a pressure of some fifteen to eighteen pounds per square inch in a near horizontal position which permits the air core to be maintained at this low pressure, with consequent savings in power and maintenance.

Major problems include medium recovery. Difficulties in this area have been eased by the use of sieve bends and by reduction of rinsing water from over 10,000 cubic feet per 100 tons of coal to some 3,500 cubic feet by use of shower boxes. The use of drum magnetic separators has removed the need for two stages and a densifier.

Density control is rapid because of the low quantity of dense medium required (some 450 cubic feet per 100 tons of coal with circulation of the order of 9,000 cubic feet per hour per 100 tons).

To improve recovery of fine magnetite the medium recovery circuit may be changed to:



There is not much degradation of coal in a cyclone since coal does not come in contact with the wall of the cyclone. Some shale may be broken. Unit sizes are from 24 inches (70 tons per hour) to 14 inches (11 tons per hour) with core angles from 14 to 30 degrees.

Ni-Hard cast iron is an important material of construction.