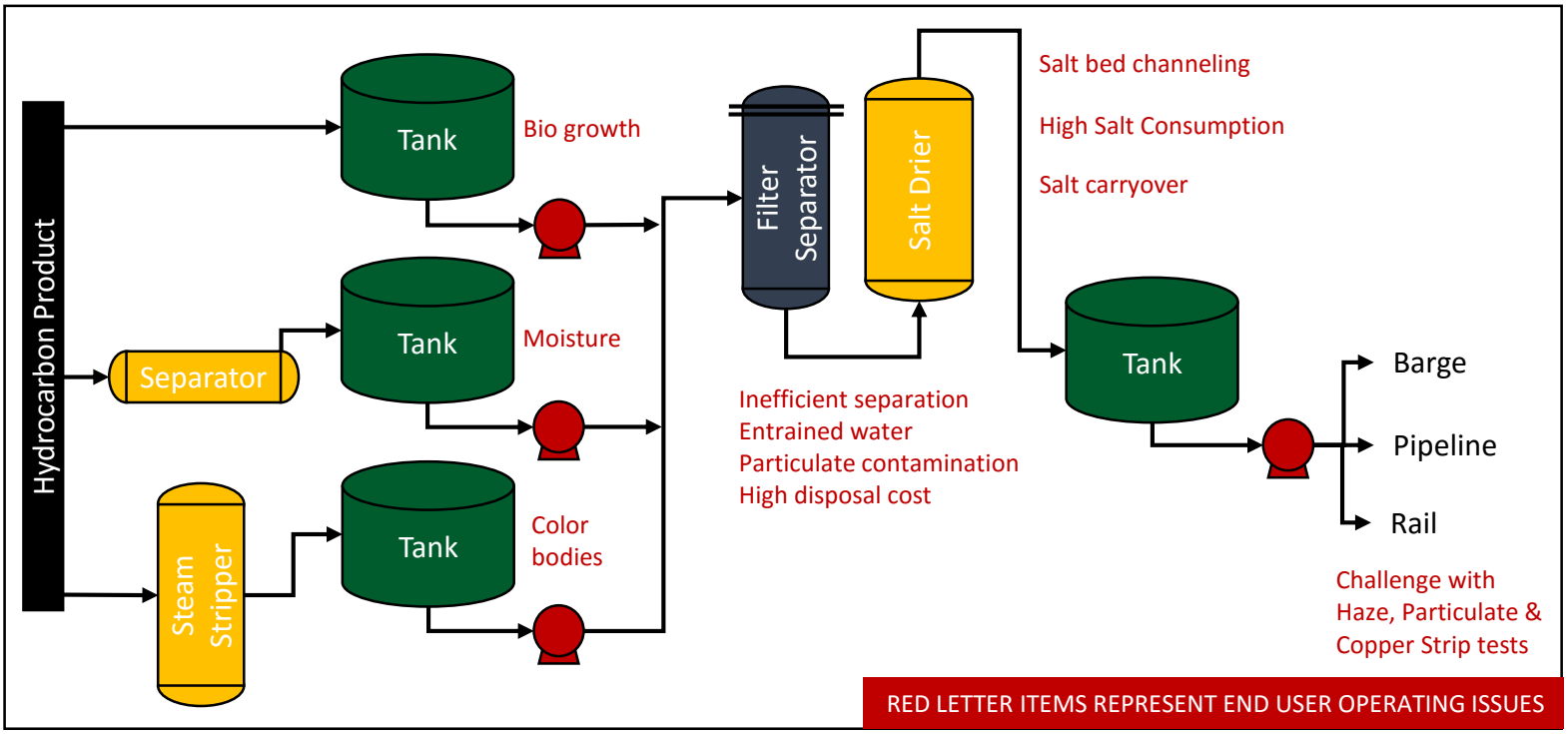
Transcend IDEA™ Update – Fuel Custody Transfer

Fluid quality of gasoline and diesel during custody transfer is critical. The hydrocarbon product can contain particulate and emulsified aqueous contaminants. These issues can be solved through better technology, and often by upgrading existing pressure vessels



TYPICAL OPERATING ISSUES

There are a number of operating issues (haze, particulate contamination, copper strip corrosion tests, filter and salt replacement costs) that are often symptomatically addressed. The root causes of all these issues can often be traced back to poor separation prior to the salt-dryers.

API 1581/1590

This specification is often invoked to govern the design of custody transfer separators. However, this specification is not appropriate for refinery custody transfer. The specification applies to:

- Aviation fuel conditioning at an aviation facility
- Applications where the effluent can contain 0.26 mg/lit of solids, 15 ppm_v of free water, and filter fiber migration

The use of such specifications within the refinery boundaries is liable to cause operating issues with both the salt driers and the custody transfer specifications.

KEY INSIGHT

Application of the right media technology to capture solid and aqueous contaminant at a high efficiency, in a high capacity envelope to minimize change out frequency.

ROOT CAUSE APPROACH: SEPARATIONS

Contamination control is the key parameter that defines effective process control, which is essential for an optimized process.

Salt driers are intended to remove soluble water in the gasoline and diesel to an even lower level - so as to allow the gasoline and diesel to still remain in specification despite moisture ingression into product tanks or low temperature storage.

Sending emulsified water in a hydrocarbon stream to a salt drier will effectively cause channeling in the bed, which in turn will cause high localized velocities, salt carryover, and poor hydrocarbon salt contact.

The root cause solution is to remove particulate and emulsified aqueous contamination before the salt driers. In many cases, existing filter-coalescers may be upgraded.

PRACTICAL IMPACT

- ☑ Reduced salt consumption
- ☑ Reduced salt carryover
- ☑ Reduced off-spec product
- ☑ Longer online life for filters
- ☑ Reduced overall costs by 20 – 50%

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