

Advantage of Hydrocarbon Loss Assessment

Minimizing of Hydrocarbon Loss through Effective Investigation Methodology

With recent hydrocarbon loss assessment performed by PTTES, more than **20 million baht per annual** of apparent loss of hydrocarbon has been revealed and addressed through an effective investigation methodology.

Hydrocarbon loss is usually found and occurred whenever there are transportation of hydrocarbon products and measuring activities, which are performed in order to settlement weight of products for sale or for inventory in containments. In order to effectively identify the Hydrocarbon loss, systematically investigation methodology would help facilitating to discover and explore the root causes. A conventional execution process is proposed as below but can be adjusted to suit with clients working and business environment to enhance successfulness of Hydrocarbon loss assessment as well as Hydrocarbon loss minimization.

Success of the assessment is not only accredited by an effective execution process but assessor's competency, skills, and experiences are also main contribution since the most of works has related to data analysis and diagnosis with technical knowledge approach. Experienced assessor helps to quickly identify problematic issues with practical suggestion to close gap of that of issues.

Execution Process

The strategic work flow process of hydrocarbon loss assessment

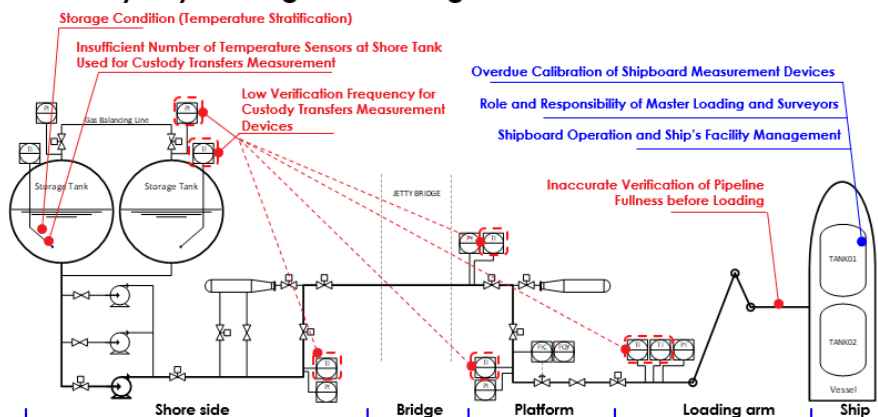


With recent hydrocarbon loss assessment and investigation performed by PTTES, all problematic issues and key findings were outlined and visualized throughout the transportation process of hydrocarbon products. Each finding has been identified through a systematic validation process. All investigation findings have been addressed with appropriate solutions which some related to process design, operational and maintenance practice, and shipboard operation and management. The following outlines are the key area of improvement, which can be commonly addressed in the hydrocarbon loss assessment;

- ✓ Temperature determination systems
- ✓ Temperature stratification of product due to insufficient mixing device and operational practice
- ✓ Verification and calibration schedule of custody transfer measurement devices
- ✓ Methodology of determining pipeline fullness test
- ✓ How to supervisions of managing shipboard operation and ship's facilities

As a result, there are more than 20 million baht per annual of apparent loss was identified which cause from above issues. Recommendations are provided to client to establish actions and mitigation plans in order to minimize loss of hydrocarbon in transportation and measurement activity.

Summary Key Investigation Findings



In summary, conducting Hydrocarbon Loss Assessment is strongly recommended for the client who has involved with products movement and transferring with metering and measurement system.

Key benefits, which client can gain from performing Hydrocarbon Loss Assessment are minimizing Hydrocarbon loss of products from final settlement from selling product in weight or volume basis and providing more accurate and robust of hydrocarbon products' custody transferring measurement system.

For more information, please contact
 Ms. Jariya Oonmechai, at Jariya.o@pttes.com
 Mr. Werawat Permsantithum, at werawat.p@pttes.com
 Mr. Karn Phongprot, at karn.p@pttes.com