

OSSuite™ Risk-Based Inspection

Industry continues to face pressure to demonstrate they are performing the right maintenance and inspection activities, while reducing costs and maintaining safe operations in compliance with OSHA 1910.119 and the Bureau of Safety and Environmental Management (BSEE) Safety and Environmental Management Systems (SEMS) Regulations. OS's new RBI software and industry leading RBI knowledge empowers operating companies to reduce risk and focus resources where they matter most while driving measurable economic benefits from implementing a sustainable RBI program.

Sustaining Your Investment in RBI

Many companies make the investment in RBI software, but fail to obtain sustainable results due to the lack of follow through. OSSuite™ offers powerful game-changing integration with other key OSSuite™ modules to ensure that your investment continues into the future by leveraging powerful Management of Change and visualization capabilities that identify risk as it occurs and facilitate updating your inspection program.

Qualitative and Quantitative

OSSuite™ offers both a qualitative and quantitative RBI option. The qualitative option is based on the Tischuk model, offering a relative risk ranking. The robust quantitative option leverages the best parts of API RP 581, while avoiding the rigor that can make RBI a time-consuming endeavor. OS's quantitative RBI calculates the Probability of Failure (PoF) and Consequence of Failure (CoF) for damage that is potentially occurring. Because our software is stream composition based, "changes" to damage mechanisms can be seen as they occur (i.e. addition of chemical injection points, feedstock variability). Cost benefit (risk reduction and \$ spent) can be calculated to determine the optimum inspection interval. OSSuite™ also integrates API RBI 581 with our API 584 Integrity Operating Window (IOW) module, to give owners the ability to address feedstock variability and process upsets.

Turnaround and Inspection Planning

OSSuite™ enables the integration of RBI data into the Turnaround Process through a robust project planning module that incorporates drag and drop scheduling into a time-based inspection module so that no planning detail gets lost. This allows operators to target resources where they matter most, while maximizing equipment uptime.

Risk-Based Intervals

Inspection intervals can be optimized to a 20 to 25 year potential maximum. In addition, because the powerful MOC module helps operators see changes that normally go undetected, inspection intervals may be shortened as auto adjustments can be made as conditions change. The result is that high risk equipment is provided the right level of inspection and maintenance attention. OSSuite™ offers a redlining and document management module to reduce the effort required to circuitize your plant while ensuring your process safety information stays harmonized with our process safety management system. Our calculated POF and risk levels allow inspection intervals to change over the life of the equipment.

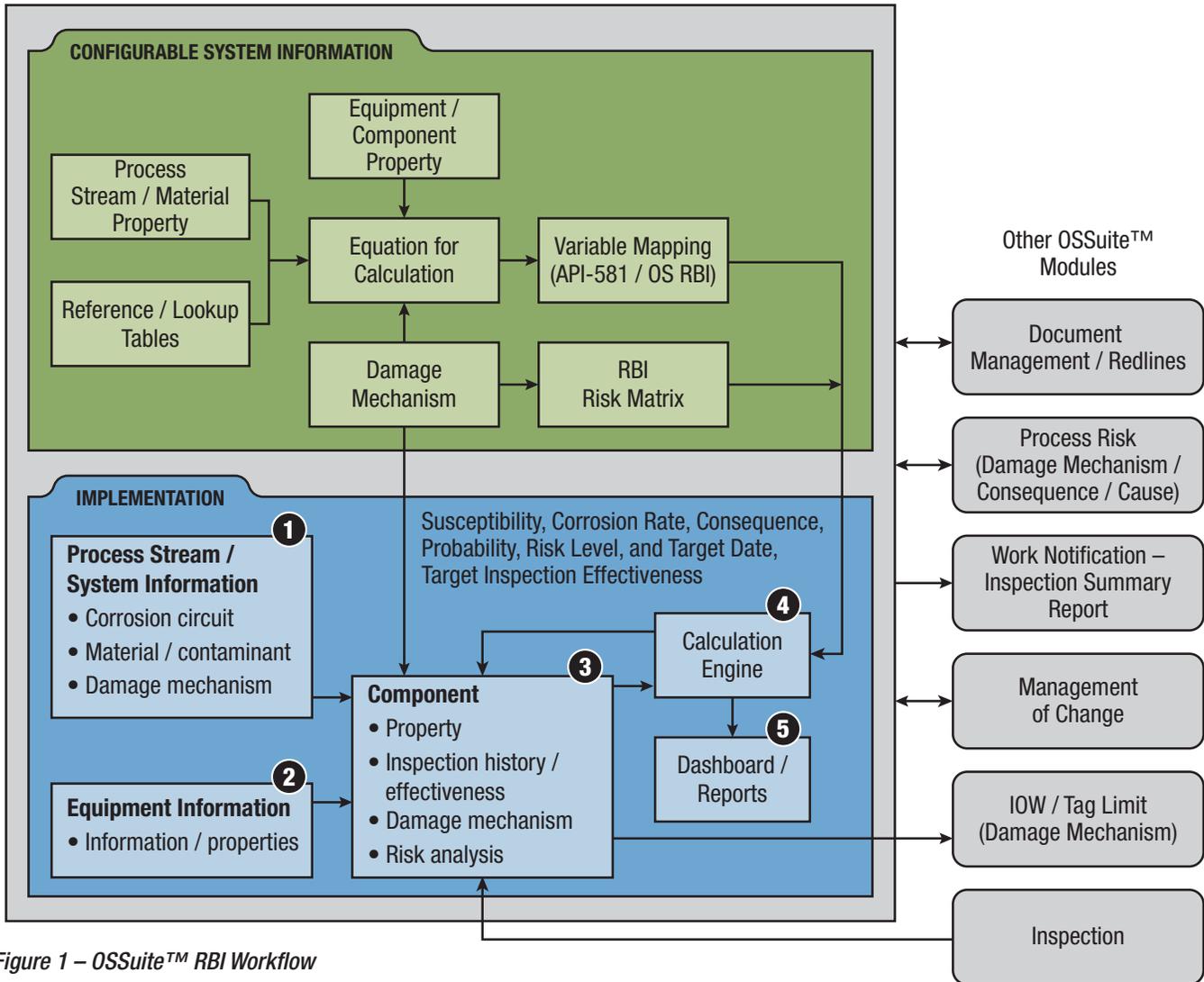


Figure 1 – OSSuite™ RBI Workflow

The OSSuite™ Difference

OSSuite™ software was developed based upon feedback from our clients and industry experts. We offer the rigor of API RBI quantitative methodology and the benefits of qualitative RBI templates, depending on your facility's needs. We bring it all together by integrating MOC with RBI and historical time-based inspection, while tying operating variables driving damage mechanisms to an acceptable operating range of variables. OSSuite™ flags management using email alerts on potential equipment integrity issues. Risk is tied back to inspection requirements to justify upgrades. The final product is a living inspection plan tied to notifications of IOW events linking to the OSSuite™ Incident Module. The individual tasks or activities are integrated with strategies and procedures.

The OS RBI solution is consistent with API 510 and NB-23 (for pressure relief devices). The atmospheric tank information is consistent with API 653. OSSuite™ also integrates RBI with Fitness for Service (FFS) using API 579-1 / ASME FFS-1), pressure relief system design (API 520) and damage mechanisms (API 571).

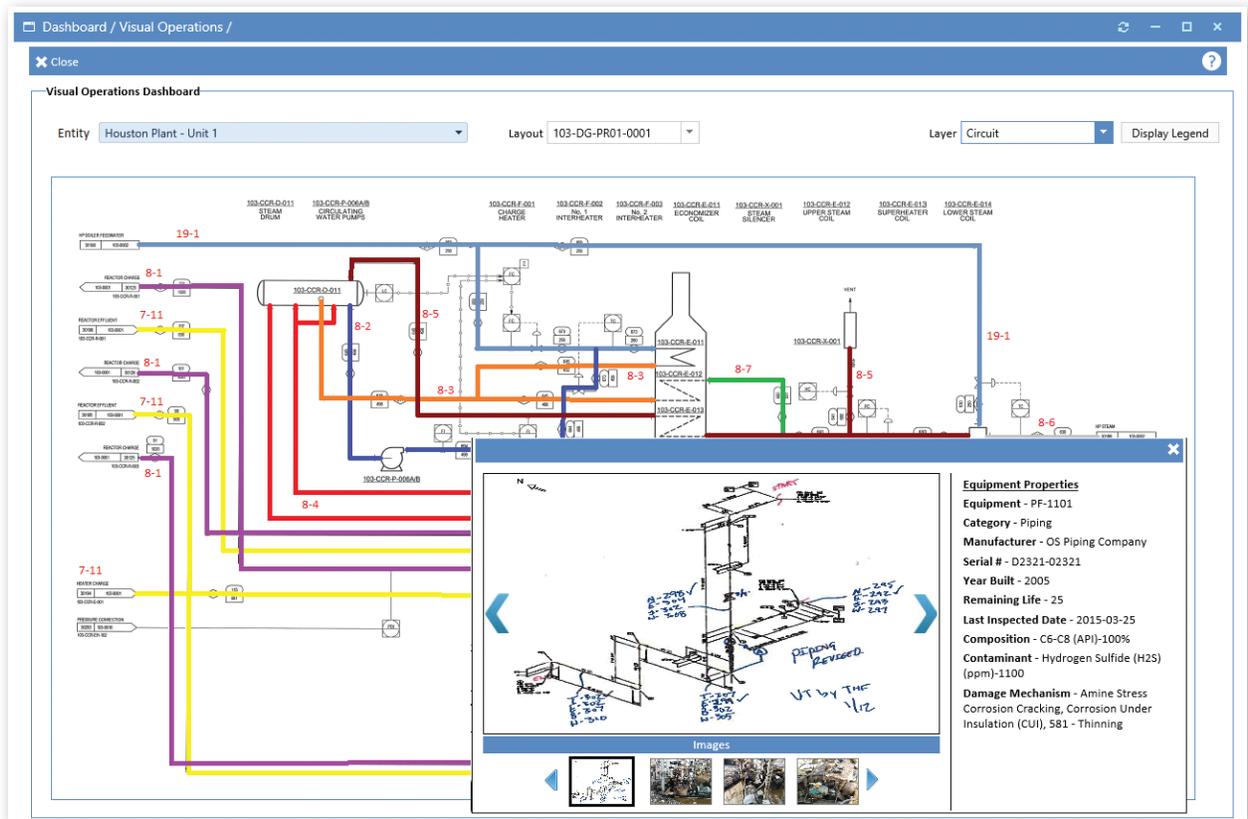


Figure 2 – OSSuite™ Visual Operations

While most RBI solutions have generic RBI capabilities, OSSuite™ was optimized to ensure that PRD inspections are pushed out as far as is practical based on risk. In addition, the MOC module is integrated to ensure that process changes are factored into potential requirements in PRD design information. The Visual Operations function enables users to quickly filter to see the most critical PRDs, inspection and work order history, and failure information, while ensuring that the overall rules of the plant risk tolerance are not violated.

Our software offers the following RBI outcomes:

- Screening of operating units to identify areas of high risk
- Estimating risk values associated with the operation of each equipment item based on a consistent methodology
- Prioritizing the equipment based on the measured risk
- Designing a highly effective inspection program
- Systematically managing the risk associated with equipment failure to maintain equipment availability

For more information email us at info@os-orm.com or call (713) 355-2900.