



# Inspectioneering Journal

ASSET INTEGRITY INTELLIGENCE



## PROGRAM EVERGREENING AND SUSTAINABILITY ASSISTANCE IS KEY TO ESTABLISHING SUCCESSFUL INTEGRITY AND RELIABILITY PROGRAMS

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**VOLUME 22, ISSUE 5**

SEPTEMBER | OCTOBER 2016

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## INTRODUCTION

Integrity and reliability personnel at processing facilities are no strangers to initiatives to improve processes in the pursuit of establishing best-in-class reliability programs. It is common practice for operators to enlist help from third parties that specialize in implementation of programs like Risk-Based Inspection (RBI) and Asset Management. While third parties may effectively facilitate program implementation, facility personnel often overlook the continued value of involvement of third parties for maintenance and sustainability of the newly implemented practices and systems. All too often, the new program implementation fails to deliver the valuable changes that were envisioned. This is often because the step change that is required is too significant for facility personnel to adapt to without assistance. This post-implementation transition to the new normal is the single greatest risk of failure for most newly-implemented programs.

## PROGRAM EVERGREENING: DEFINED

Program evergreening is essentially continuous maintenance, or program maintenance, and is the final puzzle piece to achieving a successful, comprehensive, and integrated asset integrity and/or reliability program. The term evergreening is derived from nature. To illustrate, trees that are identified as “evergreen” maintain foliage throughout the year rather than growing all leaves at once then dropping all at once. On a consistent basis, these plants are always adapting, updating, and improving in order to sustain life. This concept has been applied to facility program maintenance, as we now identify “evergreening” as the practice of maintaining program viability as conditions change. In other words, program evergreening ensures that a facility’s newly implemented program remains effective by appropriately adapting to changes and updates that affect the systems and the core program constantly, as those events occur.

It is common practice for facilities to work with third parties for assistance with program implementation, however, after the implementation process, they typically part ways. This is where issues begin to arise. Upon the third party’s exit, the personnel at the facility are left alone to maintain a complex, newly implemented program, while still keeping up with their already considerable day-to-day operations. A great example of this is a transition from a fixed-interval inspection program to RBI. Data points that were rarely considered in the past are now integral, and must be kept up to date in order to keep the analysis that happens “behind the curtain” of the RBI software valid. Thus, handling all of these new aspects, while continuing to operate an effective inspection

program, can quickly become overwhelming for any department. What we often see is that newly implemented systems are not kept evergreen as information in the plant changes, and subsequently, facility personnel lose confidence in the analysis, scheduling, and guidance these new systems provide. Once confidence is lost, it is rarely regained without significant effort that rivals that of the initial implementation.

Program evergreening is simply a concentrated effort that ensures programs remain up-to-date and that confidence in their results is maintained. Using my example of an RBI implementation, a third party can provide evergreening support by ensuring that the new RBI software is kept up to date with changes prompted by:

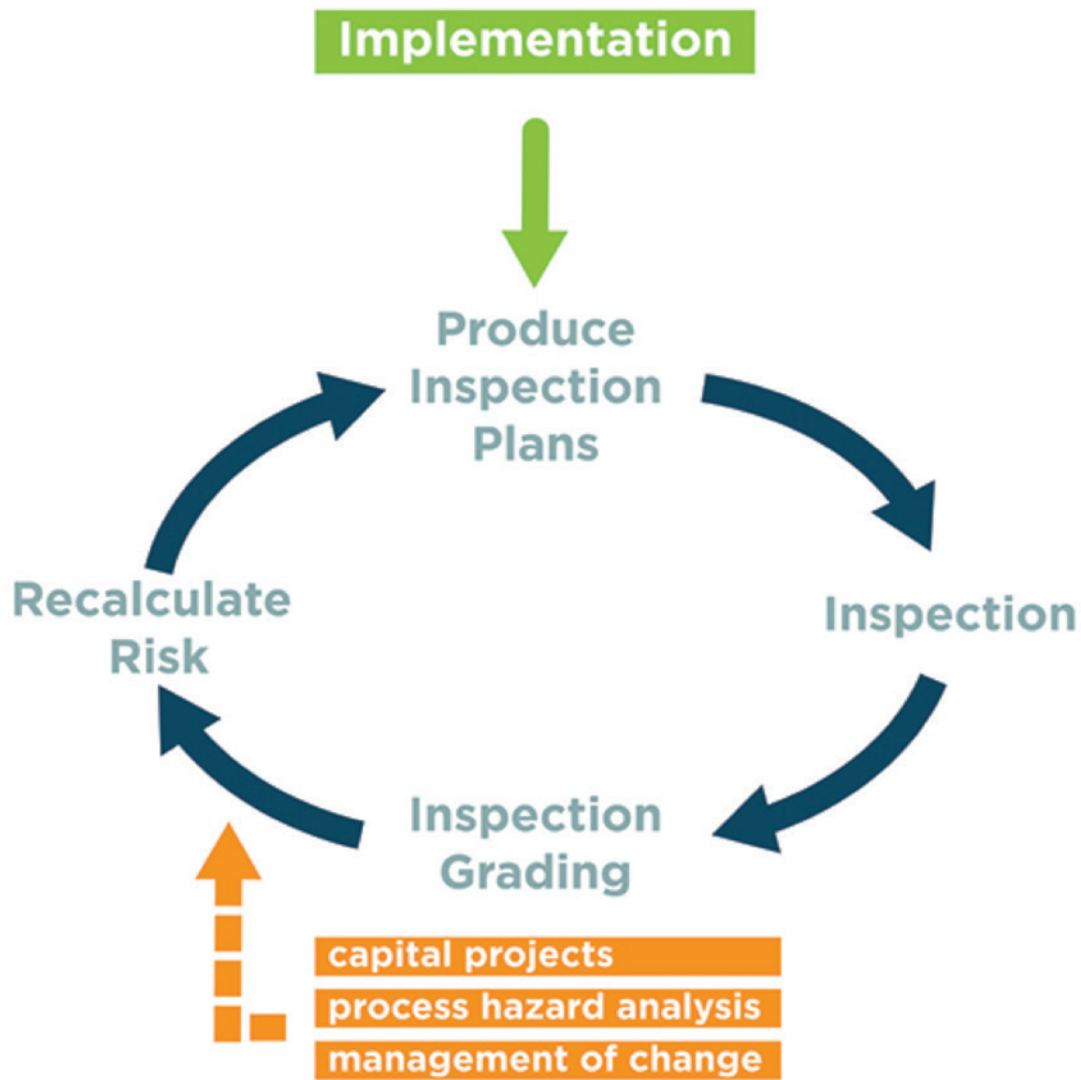
- Inspection events driving a risk recalculation
- Replacement of components and assets
- Management of Change (MOC) events, such as
  - o Changes in process that require corrosion re-evaluation
  - o Changes in metallurgy of components and assets
- Capital Projects that require addition of multiple new assets.

The third party facilitating the implementation and evergreening can also incorporate updates to the data in each of the following locations: document management system, IDMS/RBI software, circuitized P&IDs, inspection drawings, and any other documents that are critical to the integrity program.

Ideally, a third party’s evergreening efforts should support a facility’s newly implemented program through both initial and transitional stages, and for the duration deemed necessary by the facility for their personnel to own and gain confidence in the new program, as well as all of the business practices that are required to keep it maintained.

## THE PROCESS: IMPLEMENTATION TO LIVING PROGRAM

A true, holistic integrity and/or reliability program often needs third party assistance to achieve sustainability and deliver the



**Figure 1.** RBI Evergreening Cycle.

desired value. This can provide a smooth transition from start to finish, and result in an optimized program that is sustainable with reasonable effort. **Figure 1** provides an illustration of a typical RBI evergreening cycle.

### VALUE OF CONTINUED SUPPORT?

Whenever outside resources are engaged to implement programs, allowing them to remain in the picture post-implementation to assist through the transition of making the program regular practice will enable facilities to achieve a truly sustainable program. Overall, the benefits achieved from the evergreening process include the following:

1. **Confidence in Systems:** By ensuring that updates to data points are incorporated in all necessary locations, facilities are empowered to maintain confidence in their systems and analysis. In turn, because facilities are able to trust their data, they are also able to make informed business decisions using that information.
2. **Minimized Risk and Optimized Costs:** Assistance from an experienced contractor in transitioning the program

minimizes the risk of a “failed implementation.” These efforts are not without significant cost, and the addition of a relatively small percentage reduces the potential need to completely rehabilitate the program a few years later, at the same or higher cost as the original implementation, or to “sunset” the program.

3. **Partnership in Your Success:** Having a qualified contractor support your program after implementation can often expose other areas for improvement to “cold-eyes.” For example, areas of operation that were not part of the initial implementation may pose risks to success, and experienced contractors are able to help you identify and address these issues. Additionally, if a contractor is responsible for keeping things running well, it is now in their interest to optimize plant processes to ensure mutual success. ■

For more information on this subject or the author, please email us at [inquiries@inspectioneering.com](mailto:inquiries@inspectioneering.com).



### **KEVIN BIRKBY**

As a senior member of Pinnacle Advanced Reliability Technologies' (PinnacleART) Solutions Department, Client Solutions Engineer Kevin Birkby partners with current and prospective clients to develop custom asset integrity, reliability and inspection programs that meet the needs of a process facility's growing challenges. Before joining PinnacleART, Kevin had more than 12 years of experience designing manufacturing solutions for wood and plastics fabrication facilities. He consulted on air-pollution control for similar clients and designed systems and piping to maintain clean working environments when large amounts of contaminants were being generated in manufacturing processes.