Sun Chemical Boosts Inspection Efficiency and Audit Readiness with API Toolbox

AT A GLANCE

Customer: Sun Chemical
Product Used: API Toolbox

THE CHALLENGE

Sun Chemical, a global manufacturer with multiple facilities, oversees a wide range of static equipment, tanks, pressure vessels, and piping, all requiring detailed inspection and regulatory compliance. For Jim Piatt, Maintenance Director, ensuring accurate, timely, and auditable inspection records is a top priority, and a daily challenge.

Before adopting Technical Toolboxes, Sun Chemical relied on a combination of Excel spreadsheets and Windows databases. This outdated method was not only time-consuming but carried the risk of errors and version control issues, particularly when code updates were involved. The limitations of these legacy tools prompted the need for a more modern, scalable solution.

“IT TOOK LIKE THREE DAYS TO GET ALL THE FILES TOGETHER... DIGGING THROUGH SOMETIMES LITERALLY FILING CABINETS.”

For a team operating under tight resource constraints, manual processes and fragmented data created delays, inefficiencies, and risk, especially during audits.

THE SOLUTION: API TOOLBOX

Recognizing the need for better control over inspection records and code calculations, Sun Chemical implemented the API Inspectors Toolbox across several of its key facilities. The goal was to empower both internal engineers and third-party contractors with a consistent platform for capturing and validating inspection data, and it worked.

The software quickly became an everyday tool for the team, used for calculating minimum thicknesses, generating standardized reports, and housing inspection records in one place. This shift gave Sun's engineering staff immediate visibility into the health of critical assets, and more importantly, the ability to respond quickly when regulatory agencies came calling.

Today, a total of four users, including internal team members and third-party inspection contractors, are actively using the software across maintenance and reliability functions. This coordinated approach ensures a unified data environment and smoother collaboration across all stakeholders involved in mechanical integrity.

"THE RELIABILITY ENGINEERS WORK DIRECTLY FOR MAINTENANCE. WE DID COORDINATE THE SOFTWARE WITH THE INSPECTION FIRM SO THEY USE YOUR APPLICATIONS FOR INSPECTION REPORT GENERATION AS WELL."

This cross-team adoption has significantly improved visibility into inspection timelines and degradation trends, enabling Sun Chemical to better align internal efforts with external inspections.

“ANECDOTALLY, YOUR SOFTWARE DID EXACTLY WHAT I NEEDED IT TO DO. I HAD A DNREC (DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL) VISIT... THEY WANTED TO KNOW THE INSPECTION RECORDS ON A SPECIFIC TANK. THAT TOOK 30 SECONDS.”

Instead of scrambling through physical filing cabinets or disconnected spreadsheets, the team could respond to state regulators with just a few clicks.

“LITERALLY, I GOT THE EMAIL, SHOT A NOTE TO [OUR INTERNAL INSPECTION LEAD] AND SAID, ‘CAN YOU PULL THIS OFF TECHNICAL TOOLBOXES?’ YUP. TWO MINUTES LATER WE WERE SENDING PDFS AND DNREC WAS SATISFIED AND WALKED OUT THE DOOR IMMEDIATELY.”

That real-time retrieval of inspection records under pressure was a turning point. It didn't just showcase the value of the tool, it validated the investment.

"THOSE MOMENTS IMMEDIATELY BACK UP THE INVESTMENT ON MY END AND THE BELIEF IN YOUR PRODUCT… THAT SOLD IT."

"DROPPING IT FROM THREE DAYS' WORTH OF LABOR-INTENSIVE RESEARCH AND DIGGING THROUGH FILING CABINETS TO 30 SECONDS IS INVALUABLE, ESPECIALLY FOR ME AS A MAINTENANCE DIRECTOR WITH LIMITED RESOURCES"

Additionally, Sun Chemical aligned its third-party inspection contractors with the same tool, streamlining workflows and improving data accuracy at the source. By using the API Toolbox directly in the field, on tablets, inspectors could eliminate redundant data entry and minimize errors.

"THEY WERE WRITING EVERYTHING DOWN ON A PAD AND GOING BACK TO THE OFFICE TO TRANSFER IT TO A DOCUMENT. NOW, WHEN THEY'RE USING YOUR SOFTWARE ON TABLETS DIRECTLY IN THE FIELD, THEY'VE DISCUSSED A LOT OF TIME SAVINGS, ESPECIALLY ON THE TECHNICIAN END AND THE DATA COLLECTION END."

THE RESULTS

The API Inspectors Toolbox is now embedded in Sun Chemical's inspection and mechanical integrity workflows, playing a key role in both reactive and proactive scenarios. Whether responding to a regulator, validating field data, or calculating inspection intervals, the software is delivering tangible results.

Since implementing the tool, Sun Chemical has saved **approximately three full person-days of labor** on inspection record retrieval and documentation - a task that now takes **just 30 seconds**. This drastic time savings has reduced stress and improved audit readiness.

"WE NO LONGER HAVE STRESS OR ANXIETY OVER INSPECTORS COMING IN AND ASKING FOR SIMILAR DOCUMENTS FOR OUR VARIOUS TANKS AND VESSELS."

The tool has also enabled longer-term asset management by tracking failure trends and calculating MTBF (mean time between failure), allowing for proactive planning and investment in equipment health.

“WE ARE PROGRESSING INTO LONGER TERM ASSET MANAGEMENT. WE ARE ALSO ABLE TO RAPIDLY SEE MULTIPLE FAILURES AND MTBF FOR THOSE FAILURES.”

Jim’s team no longer waits days to track down inspection documents or re-run calculations by hand. Instead, they benefit from rapid access, built-in code alignment, and automatically generated reports, freeing up engineering time for more strategic work.

The results aren’t just operational - they’re financial. By cutting time, reducing rework, and removing bottlenecks, the investment in API Toolbox has already shown a clear return.

“[OUR INTERNAL INSPECTION LEAD] IS PROBABLY IN YOUR SOFTWARE IF NOT THREE TIMES A WEEK, ALMOST EVERY DAY HE’S TOUCHING IT IN SOME WAY, SHAPE, OR FORM.”

Sun Chemical has deployed the tool across multiple sites and plans to extend it company-wide. With corporate engineering preparing to roll it out more broadly, the organization sees API Toolbox as a scalable platform for managing compliance and integrity across their entire footprint.

FINAL THOUGHTS

The impact of API Inspectors Toolbox at Sun Chemical goes far beyond calculations - it's changed how inspection data drives decisions, supports audits, and ensures regulatory compliance.

Real-time field use, centralized data access, and near-instant report generation have made the tool indispensable across multiple roles and departments. As the company moves toward broader deployment, it sees Technical Toolboxes as a foundational platform for long-term mechanical integrity.

With ROI proven in the first year and a growing internal user base, the API Inspectors Toolbox isn't just a software product, it's an integral part of Sun Chemical's operational strategy.

WANT TO LEARN HOW THE API TOOLBOX CAN SUPPORT YOUR NEXT TEAM?

Built for inspection pros on the move, the API Toolbox turns complex API 510, 570, and 653 inspections into streamlined workflows. Say goodbye to spreadsheets and scattered notes - this tool simplifies reporting, ensures compliance, and cuts your time from days to hours. If you're juggling rework, missing data, or backlogged audits, the API Toolbox brings clarity and control to every inspection.

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