CASE STUDY

Fortune Global 5 Refinery

TRACK PLATFORM

A FORTUNE® Global 5 refinery asked TRACK Software to provide them with an analysis of three contractor labor invoices for a 45-day period during their Spring Turnaround. TRACK's™ goal was to calculate the net time for all the contract employees and compare it to the actual invoices the refinery paid. TRACK automated the Contract Terms and Conditions for each contractor, imported the actual access control system (ACS) in/out events and applied the same skills and schedules that were used during the Turnaround.

TRACK identified a significant difference between the calculated net time and the actual invoice. TRACK discovered $2.1 million in labor savings for the 6 weeks evaluated. Extrapolating the 45-day loss, assuming a refinery has two Turnarounds a year and uses contractors for routine maintenance, the refinery is conservatively losing approximately $10 million a year in contractor labor billing.

GLOBAL 5 REFINERY SAVES OVER $2.1MM IN ONLY SIX WEEKS

Where did TRACK find the savings?

- The analysis discovered a total delta of 21,024 hours, for $2.1 million, between the actual paid invoices and TRACK's calculated net time.

- TRACK's analysis of the gate log revealed that 7,146.5 hours of the total delta, for $574,244.95, consisted of undocumented offsite time that was invoiced by the contractor. It is unknown if these hours are for valid work or if the contractor charged the owner for work and personnel out of the Turnaround scope. Once implemented, TRACK will only allow the work and personnel in scope to be invoiced by using an exception and override process that allows visibility and tracking for all work outside the perimeter and requiring electronic approval by the Owner.

- There was a delta of 13,877.5 hours, or $1,557,395.84, consisting of contractor personnel arriving late, leaving early, taking long lunches or leaving during their work schedule. Without electronic contractor monitoring, owner companies can spend hundreds of thousands of dollars more on labor expenses than planned, significantly reducing their profit margins.

- A significant number of contractor personnel arrived at the refinery before their shifts started. Consequently, they left before their scheduled shifts were over. Flexible schedules like this can lead to lost productivity and revenue.

- Contractor personnel appear to have invoiced the time between the personnel first punch in and last punch out, which is greater than the schedule provided and resulted in overbilling. TRACK works with both the work schedules and gate logs to provide net billable time and gives visibility to instances of overbilling.

- There were 2,931 instances of overbilling found due to personnel coming in after the shift started and/or leaving before the scheduled shift ended. The Refinery was billed the full amount of the scheduled shift and lost an innumerable amount of money in production.

- The contractors rounded UP, in favor of themselves, instead of rounding down, in favor of the refinery when personnel only worked a partial half-hour. For example, if a contractor left the refinery at ten minutes past the hour, the refinery was billed for the entire half-hour. There was an overcharge of twenty minutes. Writing better contracts would eliminate any questions about how a contractor could bill and reduce overbilling.

Result Details

The owner provided TRACK with the original invoices for the 3 contractors involved in the analysis. The first table summarizes the invoices by Straight Time, Over Time and Double Time for a total spend of $18.1 million.

INVOICED HOURS COMPARISON

Vendor Invoices	Contractor 1	Contractor 2	Contractor 3	TOTAL
ST Hours	49,628.50	62,277.50	42,624.75	154,530.75
OT Hours	22,835.00	23,759.50	13,814.00	60,408.50
DT Hours	6,311.00	8,761.00	3,153.25	18,255.25
Total Hours	78,744.50	94,798.00	59,592.00	233,164.50
Total Dollars	$6,479,378.15	$7,565,926.37	$4,144,838.00	$18,190,142.81

Once the ACS Gate Log was automated and the owner's pay rules and schedules applied, there was a significant decrease of Straight Time, Over Time and Double Time for a savings of 11.7%. These savings originated from offsite work validated by the owner, early out gate punches, late arrival gate punches and various other situations that weren't aligned with the Term and Condition's of the contract.

The table below shows the total TRACK calculations and what should have been invoiced and paid by the Owner. The Owner paid $18.1M for just these three contractors during the 45 day turnaround when they should have paid $2.1M less.

TRACK CALCULATED HOURS

Track Calculations	Contractor 1	Contractor 2	Contractor 3	TOTAL
ST Hours	50,192.75	61,181.00	41,839.25	152,213.00
OT Hours	17,28.75	18,821.00	13,048.00	48,997.75
DT Hours	1,915.50	5,688.00	2,346.25	9,929.75
Total Hours	69,237.00	85,670.00	57,233.50	212,140.50
Total Dollars	$5,437,466.05	$6,673,995.41	$3,947,040.56	$16,058,502.03
Delta Hours	9,537.50	9,128.00	2,358.50	21,024.00
Delta Dollars	$1,041,912.50	$891,930.95	$197,797.74	$2,131,640.79

Detailed Contractor Findings

Each Contractor was analyzed fully and detailed below are the various findings. As you can see, each contractor had varying degrees of contractual compliance issues.

Contractor 1

A. Hours on the invoice appear to be based on time-on-site rather than scheduled time.
B. Billable time is routinely rounded up to next half-hour increment. Even when only a few minutes of the half-hour are worked, the entire half-hour increment is billed.
C. There are 479 occurrences of personnel arriving more than five minutes late.
D. There are 906 occurrences of personnel exiting the refinery 10-20 minutes early.
E. There are 223 occurrences where on-site time is less than two hours, but the corresponding invoice time is greater than four hours.
F. Out of 7,254 invoice-detail lines, Track found 4,546 discrepancies – some of which are legitimate differences due to off-site work, etc.
G. Out of 7,254 invoice-detail lines, 3,270 have discrepancies of two hours or less. This is significant because smaller variations are less likely to be explained as off-site work.
H. The TRACK-calculated invoice error rate is 8.89% on hours and 12.87% on dollars.

Contractor 2

A. On five occasions, it appears that a four-hour minimum was used for billing. Procurement indicates that a two-hour minimum is contractual. Contract compliance is difficult when left to manual processes.
B. There are 23 occurrences of personnel arriving more than five minutes late.
C. There are 482 occurrences of personnel exiting the refinery 10-20 minutes early.
D. Out of 8,941 invoice-detail lines, TRACK found 3,014 discrepancies, some of which are legitimate differences due to off-site work.
E. Out of 8,941 invoice-detail lines, 2,267 have discrepancies of two hours or less.
F. The TRACK-calculated invoice error rate is 4.99% on hours and 7.15% on dollars.

Contractor 3

A. Hours on the invoice appear to be based on time calculated from first-in to last-out badge events. This method discounts interim time off-site and doesn't account for hours worked within schedule.
B. A two-hour minimum was applied to all personnel regardless of hours worked.
C. There are 23 occurrences of personnel arriving more than five minutes late.
D. There are 994 occurrences of personnel exiting the refinery 5-10 minutes early.
E. There are 24 occurrences of personnel exiting the refinery 10-20 minutes early.
F. Out of the 6,315 invoice-detail lines, TRACK found 918 discrepancies, some of which are legitimate differences due to off-site work.
G. Out of 6,315 invoice-detail lines, 610 have discrepancies of two hours or less.
H. The TRACK-calculated invoice error rate is 3.58% on hours and 4.39% on dollars.

The Analysis Process

TRACK starts with a standard process for Analysis and then customizes it for each Owner. This ensures an accurate and complete review, giving TRACK total confidence that the savings claimed can be substantiated.

1. Select sample data (turnaround activities - April 1 - May 15)
   - a. Contractor 1 - 303 Personnel
   - b. Contractor 2 - 405 Personnel
   - c. Contractor 3 - 208 Personnel

2. Collect data require for TRACK setup and execution
   - a. ACS perimeter gate IN and OUT badge events
   - b. Contractor personnel (company, name, craft)
   - c. Contract Terms & Conditions
     - i. Labor rates by craft (straight, premium, shift differentials)
     - ii. Pay calculation rules
       1. Early time before schedule
       2. Rounding, grace periods
       3. Lunch deductions
       4. Overtime Rules (e.g., OT>40 hrs/wk.)
   - d. Work schedules by personnel (shift schedule start and end times)

3. Collect invoices submitted by the contractors for selected timeframe
   - a. Labor Invoices
   - b. Timesheet back-up details

4. Set up TRACK Master Data
   - a. Prepare gate-event data for import
   - b. Configure TRACK Agreements, Skills, Rates, Schedules, and Pay Formulas
   - c. Resolve personnel name discrepancies between gate log and invoice/timesheet records
   - d. Assign personnel to appropriate work schedules
   - e. Resolve missing IN/OUT events

5. Execute TRACK - Daily / Day-to-Day basis
   - a. Eliminate unresolved data exceptions to ensure integrity in the data sample
   - b. Calculate results by company, by person, by day

6. Compare TRACK results to invoice documentation
   - a. Load Invoice/Timesheet details into Excel
   - b. Load TRACK calculated values into Excel
   - c. Identify mismatches

7. Analyze results to ensure completeness and accuracy of data
   - a. Eliminate incomplete or invalid data samples

8. Publish the report and present findings.

Management Controls, Inc. (MCi) helps companies obtain better visibility, control and productivity from their contract workforce. MCi's TRACK Platform provides automated contract compliance as well as a holistic view across the entire labor, equipment and materials spend. TRACK's real-time data stream can be proactively applied to optimize performance and safety for routine maintenance, turnarounds, capital projects and operations.

With the powerful addition of MCI's customized analytics service, Insights, and its managed service offering, TRACK-as-a-Service (TaaS), companies can leverage MCi's 29 years of experience to get even more out of TRACK, as well as identify opportunities to improve site productivity overall.

Industrial Sites using TRACK Platform	Annual Contractor Spend Processed	Daily Activity & Earnings of Contract Laborers Monitored	Retention Rate Since Launch (30 years ago)
300+	$60 BILLION+	4 MILLION+	99.8%

TRACK PLATFORM

MANAGE TRACK OPTIMIZE

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