International Experts in Claims Analysis, Dispute Resolution, and Project Management for Process, Oil & Gas, Pipeline, Power, Industrial, Infrastructure, and Building Construction Projects

LONG INTERNATIONAL

Engineering and Construction Claims Analysis and Expert Testimony Services

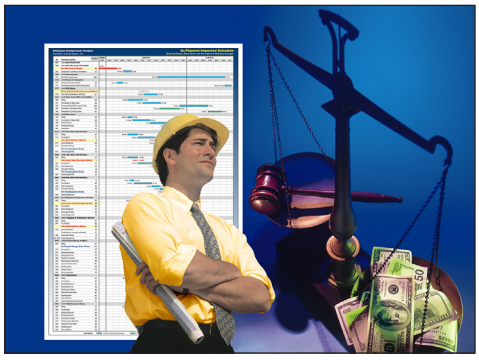
OVERVIEW

Long International applies a phased approach to engineering and construction claims analysis and expert testimony services. Our tasks depend on work a client has already performed, availability of project documentation, issues in dispute, and the timing of required work products as defined by arbitration and litigation schedules. We make any necessary adjustments to the typical work tasks described herein.

PHASE I:

Project Orientation, Preliminary Document Review, and Work Plan Development

During Phase I, we first review any pleadings, statements of claim or defense, contractor claims, and owner defenses and counterclaims. We then perform a preliminary review of relevant project documents prepared prior to and during project execution. Depending on our assignment scope, documents that we often review include, but are not limited to, those that describe the scope of work and basis for the contractual relationship, cost estimates, proposals, drawings and specifications used to develop a control budget, pre-contract correspondence and meeting minutes, contract terms and conditions, execution phase correspondence and meeting minutes, monthly progress reports, native baseline schedule and schedule update files, daily construction reports, job cost reports including control budgets and monthly cost reports, photographs and videos, pay requests and invoices, change orders, requests for information, submittals, material delivery records, subcontracts, and any other relevant documentation.

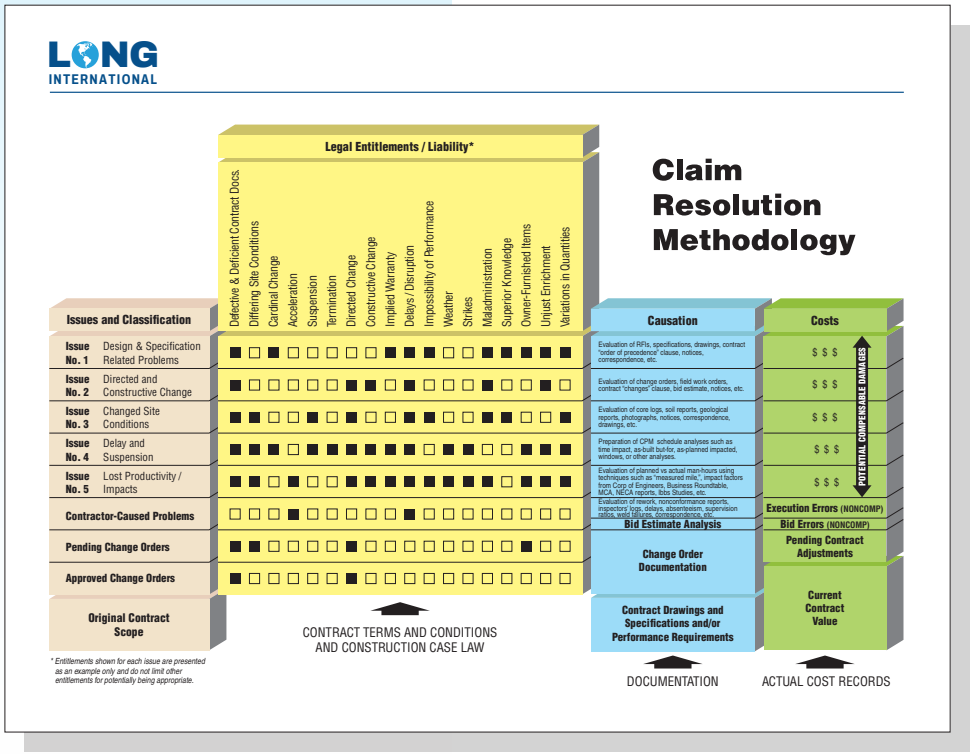


If any of the aforementioned documents are not in English, we require either English translations or electronic or clean hardcopy versions of the documents for translation. Our optical character recognition software will convert hard copies to electronic files for automatic translation followed by human translation review for accuracy.

In addition, we interview key project personnel to discuss project problems and issues in depth. If possible, we also like to visit the project site.

This Phase I work normally takes two to six weeks, depending on the complexity of the case, the volume and availability of key documents, translation requirements, availability of client personnel, and any other tasks that our client asks us to perform during this phase.

After our preliminary review of available documentation, we prepare preliminary observations, findings, recommendations, and opinions regarding the relevant claim and counterclaim issues. We develop Phase II work plans, schedules, and budgets corresponding to the scope of work necessary to meet our client's objectives. We then discuss our proposed tasks with our client to ensure our approach is consistent with its needs.



Engineering and Construction Claims Analysis and Expert Testimony Services

PHASE II:

Document Database Development and Preliminary Analysis

During Phase II, we perform tasks that our client requires as part of an arbitration or litigation schedule. Typical Phase II tasks often include the following:

1. Develop a document database
2. Analyze the contract
3. Review the invitation to bid, job instructions, procedures, and contractor's proposal
4. Review drawings and specifications
5. Review and prepare (as required) a list of problems and issues for claims and counterclaims, including project management performance problems
6. Review approved and unapproved or outstanding change orders
7. Prepare a preliminary list of alleged delays
8. Identify, organize, and review schedule data
9. Identify any schedule software conversion requirements
10. Review the schedule analysis methodology in any submitted claims
11. Identify and review key schedule information
12. Identify, organize, and review the contractor's man-hour data, including control budget planned man-hours and actual man-hours
13. Identify, organize, and review bulk material quantity data
14. Identify, organize, and review cost data
15. Develop summary schedule variance comparisons
16. Develop a macro man-hour variance analysis
17. Develop a macro quantity variance analysis
18. Develop a macro labor productivity analysis
19. Develop a macro cost variance analysis
20. Evaluate and select schedule analysis methodology options
21. Develop Phase III and IV work plans, budgets, and schedules
22. Provide an overall assessment of the strengths and weaknesses of issues and additional document requests

PHASE III:

Detailed Analysis

After our preliminary analysis of documentation and technical, schedule, and cost issues, we perform detailed analyses that support the opinions we express in our expert reports. The tasks listed below are definitive analyses that substantiate preliminary findings. We tailor them to our client's needs, the actual scope of work and opinions required, and arbitration or litigation deadlines.

1. Prepare issue packages for the contractor's claim issues and the owner's counterclaim issues
2. Prepare an assessment of the contractor's and owner's project management performance according to the contractual requirements, and industry standard of care
3. Develop issue summaries and proof charts
4. Prepare detailed narratives with document references
5. Develop cause-effect relationships
6. Prepare a detailed schedule analysis
    a. Make a list of delays and finalize the relational database of key schedule delay information
    b. Create schedule activity duration and lag variance tables
    c. Identify responsibility for activity duration and lag delays
    d. Prepare detailed schedule analyses and calculations based on agreed upon methodologies
    e. Prepare schedule analysis tabular results
    f. Create schedule analysis graphics
7. Prepare a detailed damages analysis

Our comprehensive damages analysis provides adequate detail and supporting spreadsheets to fully explain the amount of a claim and/or counterclaim. Damages may arise from a variety of problems, and we endeavor to calculate specific damages for each problem from the data available, demonstrating the cause-effect relationships linking damages to entitlement for each problem, if possible. We often develop a damages analysis matrix for both man-hours and costs, an example of which is shown on the last page of this brochure. This matrix delineates work activities and cost types on one axis and variances between budget and contract values and actual and projected values along the other axis. We then allocate these man-hour and cost variances to problems, if possible. Subtasks may include:

1. Evaluate the reasonableness of a bid and calculation of bid error
2. Assess the owner's responsibility for direct cost issues
3. Determine responsibility for quantity overruns
4. Assess the contractor's responsibility for performance problems
5. Determine responsibility for unresolved change order requests
6. Allocate the contractor's delay costs
7. Assign responsibility for man-hour and cost overruns associated with welding problems and other rework issues
8. Analyze and allocate loss of productivity man-hours and costs
9. Create a detailed man-hour variance analysis matrix
10. Prepare a detailed cost variance analysis matrix
11. Assess liquidated/actual damages
12. Assess costs associated with the owner's counterclaims
13. Prepare damages tabular results
14. Create damages analysis graphics

Engineering and Construction Claims Analysis and Expert Testimony Services

PHASE IV:

Report Preparation

The work products resulting from our detailed analyses may take many forms, including but not limited to claims or requests for equitable contract adjustments, reports supporting the defendant's positions against claims, PowerPoint presentations, or expert reports. Arbitration or litigation may require one or more expert reports, plus rebuttal reports to critique other experts' reports, and joint expert reports. Some arbitrations also require that opposing experts meet to attempt to narrow the issues and document this effort in reports. For each claim document, presentation, or expert report, our work plan is as follows:

1. Prepare draft claim documents, presentations, or reports
2. Review our draft claim documents, presentations, or reports with the client
3. Prepare final claim documents, presentations, or reports

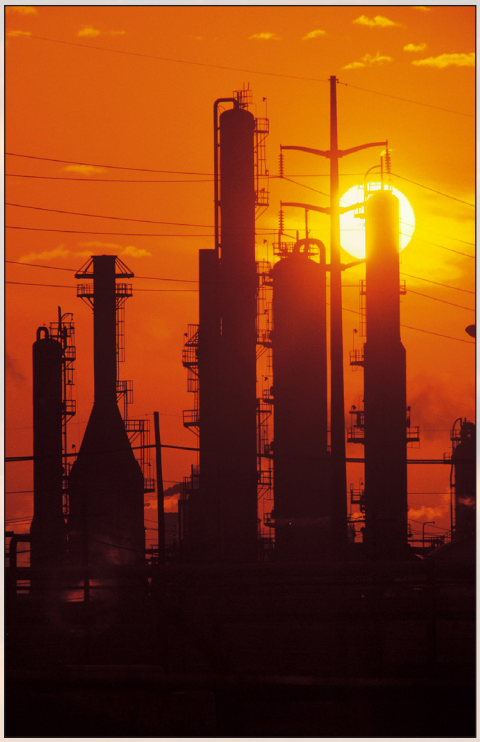
PHASE V:

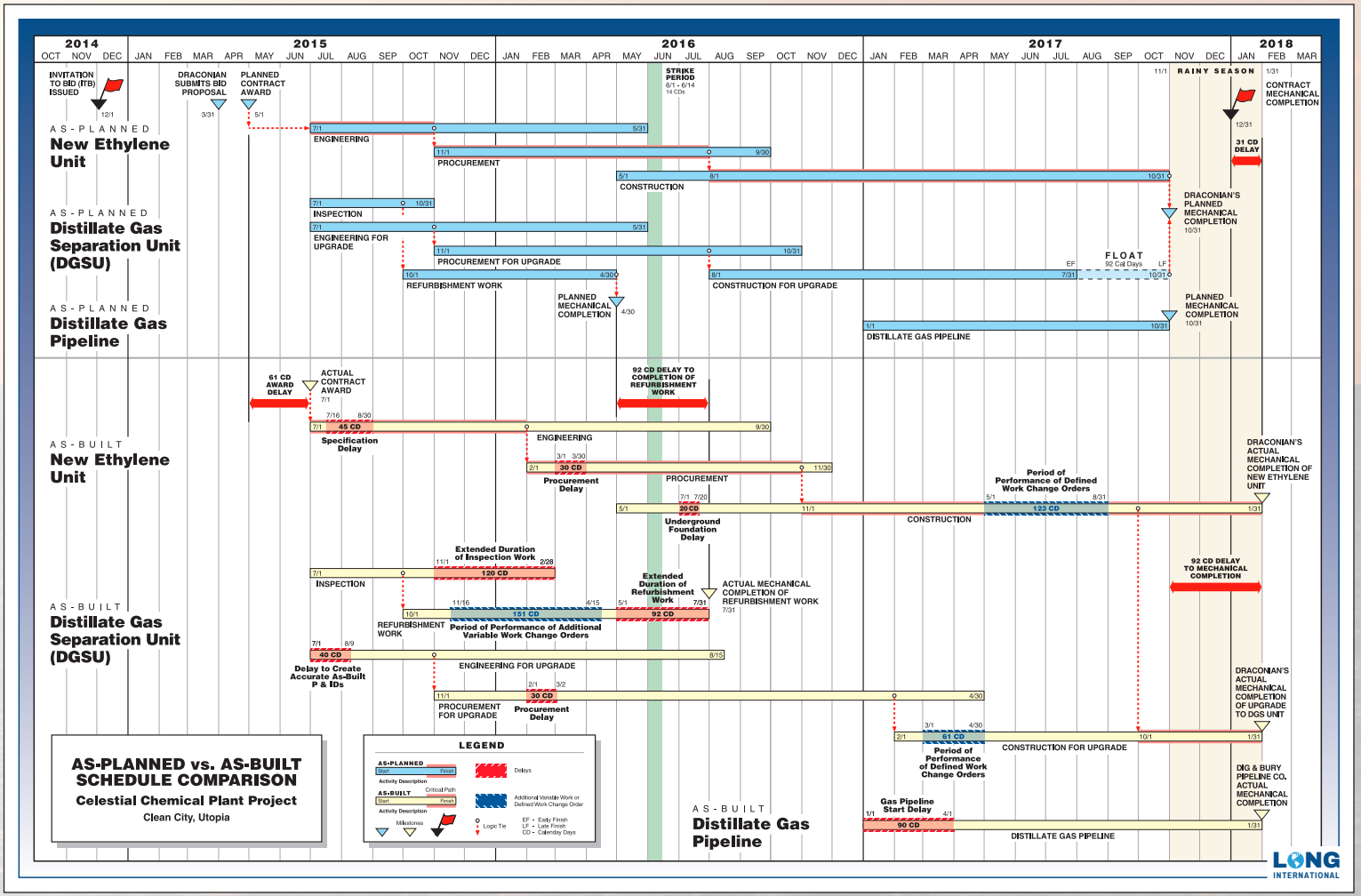
Arbitration and Litigation Testimony

If arbitration or litigation require expert testimony, our work may include the following:

1. Prepare for testimony
2. Provide expert testimony at depositions
3. Provide arbitration or litigation expert testimony

Experience Matters…





Engineering and Construction Claims Analysis and Expert Testimony Services

Arbitration and Litigation Support Throughout Project

Our clients may ask us to perform additional tasks during arbitration or court proceedings, including:

1. Assist with drafting requests for arbitration
2. Aid in drafting detailed memorials or statements of claim or defense for arbitration
3. Help draft detailed responses and counterclaims
4. Assist with settlement negotiations
5. Prepare presentations for use at mediations
6. Aid in developing document requests and interrogatories from the opposing party
7. Help develop deposition questions for opposing witnesses
8. Assist with preparing witness statements
9. Prepare issue and event timelines
10. Create graphics for technical issues
11. Make multimedia graphics presentations for use at trial or hearing
12. Prepare document indices
13. Attend depositions as counsel requests
14. Perform other tasks as client requests





Cost / Damages Matrix

(All Costs Shown in $000)

Project Work Activities	Original Contract Value	Approved Change Orders	Current Contract Value	Pending Change Orders	Bid Error (Noncompensable)	Contractor Caused Problems (Noncompensable)	Potential Compensable Damages: Issue No. 1 Inaccurate P&IDs	Issue No. 2 Increased Piping Quantities	Issue No. 3 Delay	Issue No. 4 Disruption/ Loss of Productivity	Total Actual Costs
ENGINEERING	$2,500	$400	$2,900	–	–	$120	$250		$500	–	$3,770
EARTHWORK	$1,000	–	$1,000	–	–	$200	–	–	–	–	$1,200
CONCRETE	$500	$20	$520	–	–	$100	–	–	–	–	$620
STRUCTURAL STEEL	$1,000	$100	$1,100	–	–		–	–	–	–	$1,100
INSTALLED EQUIPMENT	$7,200	$900	$8,100	–	–	$50	–	–	–	–	$8,150
PIPING	$2,000	$1,055	$3,055	$2,500	$500	$750	$1,250	$345	–	$2,500	$10,900
Direct Labor	$500	$250	$750	$600	$75	$112	$300	$75	–	$600	$2,512
Labor Taxes & Burdens	$215	$108	$323	$280	$35	$53	$145	$35	–	$280	$1,151
Permanent Material & Equip	$800	$400	$1,200	$950	$200	$300	$475	$100	–	$950	$4,175
Consumable Materials	$50	$25	$75	$50	$10	$15	$40	$5	–	$50	$245
Owned Construction Equipment	$25	$10	$35	$25	$10	$15	$30	$5	–	$25	$145
Rental Equipment	$10	$5	$15	$10	$50	$75	$10	$25	–	$10	$195
Subcontracts	$400	$257	$657	$585	$120	$180	$250	$100	–	$585	$2,477
TANKAGE	$500	$100	$600	–	–	–	–	–	–	–	$600
INSTRUMENTATION	$800	$200	$1,000	$700	–	$600	$1,000	–	–	$700	$4,000
ELECTRICAL	$1,500	$450	$1,950	$900	–	$800	$1,800	–	–	$900	$6,350
PROJECT/CONST MANAGEMENT	$2,000	$425	$2,425	$1,800	$400	$750	$2,200	–	$600	$1,800	$9,975
OTHER FIELD INDIRECTS	$1,500	$300	$1,800	$1,300	$300	$600	$1,000	$300	$450	$1,300	$7,050
HOME OFFICE OVERHEAD	$2,000	$400	$2,400	$800	–	$400	$400	$200	$600	$800	$5,600
FEES/PROFIT	$2,500	$850	$3,350	$1,000	–	–	$800	$80	$750	$1,000	$6,980
TOTAL PROJECT	$25,000	$5,200	$30,200	$9,000	$1,200	$4,370	$8,700	$925	$2,900	$9,000	$66,295

LONG INTERNATIONAL

POTENTIAL CLAIM VALUE = $21,525

TOTAL COST OVERRUN = $36,095

Engineering and Construction Claims Analysis Experience You Can Rely On…

LONG INTERNATIONAL

Long International, Inc. • 10098 Whistling Elk Drive • Littleton, Colorado 80127-6109 U.S.A. • Telephone: (303) 972-2443 • long-intl.com