

CHAPTER IX COST WORKPAPERS

Witness: J. M. Rivera

Pipeline Safety Enhancement Plan Summary Interim Safety Enhancement Measures Workpapers

Workpapers	Testimony Section	Corresponding Testimony Tables	Workpaper Page
Summary of SoCalGas Interim Safety Measures	IX.B.3	IX-10	WP-IX-4-1
SoCalGas Transmission Interim Safety Measures - Records Search	IX.B.3	IX-10	WP-IX-4-3
SoCalGas Distribution Interim Safety Measures - Records Search	IX.B.3	IX-10	WP-IX-4-4
SoCalGas Storage Interim Safety Measures - Records Search	IX.B.3	IX-10	WP-IX-4-5
SoCalGas Transmission Interim Safety Measures - Leak Survey & Pipeline Patrol	IX.B.3	IX-10	WP-IX-4-6
SoCalGas Distribution Interim Safety Measures - Leak Survey & Pipeline Patrol	IX.B.3	IX-10	WP-IX-4-8
SoCalGas Storage Interim Safety Measures - Leak Survey & Pipeline Patrol	IX.B.3	IX-10	WP-IX-4-10
Summary of SDG&E Interim Safety Measures	IX.B.3	IX-10	WP-IX-4-12
SDG&E Transmission Interim Safety Measures - Records Search	IX.B.3	IX-10	WP-IX-4-14
SDG&E Distribution Interim Safety Measures - Records Search	IX.B.3	IX-10	WP-IX-4-15
SDG&E Transmission Interim Safety Measures - Leak Survey & Pipeline Patrol	IX.B.3	IX-10	WP-IX-4-16
SDG&E Distribution Interim Safety Measures - Leak Survey & Pipeline Patrol	IX.B.3	IX-10	WP-IX-4-18

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE Summary of SoCalGas Interim Safety Measures	FERC ACCT. Various
WITNESS Joseph Rivera	

PROJECT COST (\$000,000 IN 2011\$)	2011	2012	2013	2014	2015	2012-2015	Total
DIRECT LABOR	0.114	0.187	0.143	0.111	0.076	0.517	0.631
DIRECT NON-LABOR	5.786	4.014	0.057	0.039	0.024	4.134	9.920
TOTAL DIRECT O&M	5.900	4.201	0.200	0.150	0.100	4.651	10.551

Project Description

As ordered by the CPUC to validate the MAOP of all DOT defined transmission pipelines, SoCalGas and SDG&E embarked on an extensive records search covering over 4000 miles of pipeline with over 6000 unique segments. Although some of this information could be extracted from our High Pressure Pipeline Database, much of it was still in “line files” located locally at Region bases. A team that eventually exceeded 140 employees and contractors was assembled to data mine the files, review and analyze documentation, construct a “segment summary” by work order for the test data, scan supporting test documents, perform a quality control of test documents, and then categorize each segment. For segments that sufficient strength test documentation to meet the NTSB criteria could not be found, SoCalGas and SDG&E implemented temporary remediation measures such as bi-monthly leak surveys and pipeline patrols, or lowering pressure in some segments. Charges to the memo account would be related to this incremental effort such as employee overtime pay to implement the additional leak surveys and pipeline patrols, incremental costs for contractors to assist in the data mining and document scanning effort (note did not include company employee costs for this effort), or incremental costs associated with the installation of temporary pressure control equipment to facilitate pressure lowering of some segments.

WORKPAPER TITLE Summary of SoCalGas Interim Safety Measures	FERC ACCT. Various
WITNESS Joseph Rivera	

Forecast Methodology

Established unique work orders (MWO's) to track incremental costs associated with data mining effort in February 2011 and for the additional pipeline patrols and leak surveys in April 2011. Then used charges to these work orders through May and those of June as baselines. For the data mining effort, assumed data mining costs of contractors would be flat per month from July - Dec 2011 and Jan through July 2012. It was then assumed to be complete. All costs are for contractors only since company employees involved in the effort are covered through GRC funding. For the bi-monthly pipeline patrols and leakage surveys, the same baseline numbers from the special tracking work orders were used through June 2011 which included only the first bi-monthly patrol. For July - Dec 2011 it was assumed 2 more incremental bi-monthly patrols and surveys would be conducted. Costs associated with an additional survey and patrol that would also be conducted as part of the regularly scheduled patrols and surveys was not included here. For 2012 it was assumed that there would be incremental 5 bi-monthly surveys conducted at the same cost rates as in the baseline. For 2013 for SoCalGas Transmission, Distribution and Storage it was assumed that although as segments were remediated and patrols would taper off, additional patrols would be added to cover lines in phase 2. For 2014 and 2015 it was assumed the incremental patrols and leak surveys would decrease as segments were remediated.

Please see the following workpapers for more details:

- SoCalGas Transmission Interim Safety Measures - Records Search
- SoCalGas Distribution Interim Safety Measures - Records Search
- SoCalGas Storage Interim Safety Measures - Records Search
- SoCalGas Transmission Interim Safety Measures - Pipeline Patrol & Leak Survey
- SoCalGas Distribution Interim Safety Measures - Pipeline Patrol & Leak Survey
- SoCalGas Distribution Interim Safety Measures - Pipeline Patrol & Leak Survey

Schedule

As noted in the project timeline, our interim safety enhancement measures have already been implemented this year , and we propose to continue implementing those measures until the execution of our proposed Pipeline Safety Enhancement Plan is complete. These measures if approved as part of this plan, will be implemented for Phase 2 pipelines upon completion of the Phase 2 records review process.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE SoCalGas Transmission Interim Safety Measures - Records Search	FERC ACCT. 850
WITNESS Joseph Rivera	

PROJECT COST (\$000,000 IN 2011\$)	2011	2012	2013	2014	2015	2012-2015	Total
DIRECT LABOR	-	-	-	-	-	-	-
DIRECT NON-LABOR	4.950	3.430	-	-	-	3.430	8.380
TOTAL DIRECT O&M	4.950	3.430	-	-	-	3.430	8.380

Project Description

As ordered by the CPUC to validate the MAOP of all DOT defined transmission pipelines, SoCalGas and SDG&E embarked on an extensive records search covering over 4000 miles of pipeline with over 6000 unique segments. Although some of this information could be extracted from our High Pressure Pipeline Database, much of it was still in "line files" located locally at Region bases. A team that eventually exceeded 140 employees and contractors was assembled to data mine the files, review and analyze documentation, construct a "segment summary" by work order for the test data, scan supporting test documents, perform a quality control of test documents, and then categorize each segment. Charges to the memo account would be related to this incremental effort such as incremental costs for contractors to assist in the data mining and document scanning effort (note did not include company employee costs for this effort). These costs cover the SoCalGas Transmission Records Search only

Forecast Methodology

Established unique work orders (MWO's) to track incremental costs associated with data mining effort in February 2011. Then used charges to these work orders through May and those of June as baselines. For the data mining effort, assumed data mining costs of contractors would be flat per month from July - Dec 2011 and Jan through July 2012. It was then assumed to be complete. All costs are for contractors only since company employees involved in the effort are covered through GRC funding.

Schedule

As noted in the project timeline, our interim safety enhancement measures have already been implemented this year , and we expect the Records Search to be completed by July 2012.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE SoCalGas Distribution Interim Safety Measures - Records Search	FERC ACCT. 850
WITNESS Joseph Rivera	

PROJECT COST (\$000,000 IN 2011\$)	2011	2012	2013	2014	2015	2012-2015	Total
DIRECT LABOR	-	-	-	-	-	-	-
DIRECT NON-LABOR	0.764	0.490	-	-	-	0.490	1.254
TOTAL DIRECT O&M	0.764	0.490	-	-	-	0.490	1.254

Project Description

As ordered by the CPUC to validate the MAOP of all DOT defined transmission pipelines, SoCalGas and SDG&E embarked on an extensive records search covering over 4000 miles of pipeline with over 6000 unique segments. Although some of this information could be extracted from our High Pressure Pipeline Database, much of it was still in “line files” located locally at Region bases. A team that eventually exceeded 140 employees and contractors was assembled to data mine the files, review and analyze documentation, construct a “segment summary” by work order for the test data, scan supporting test documents, perform a quality control of test documents, and then categorize each segment. Charges to the memo account would be related to this incremental effort such as incremental costs for contractors to assist in the data mining and document scanning effort (note did not include company employee costs for this effort). These costs cover the SoCalGas Distribution Records Search only

Forecast Methodology

Established unique work orders (MWO's) to track incremental costs associated with data mining effort in February 2011. Then used charges to these work orders through May and those of June as baselines. For the data mining effort, assumed data mining costs of contractors would be flat per month from July - Dec 2011 and Jan through July 2012. It was then assumed to be complete. All costs are for contractors only since company employees involved in the effort are covered through GRC funding.

Schedule

As noted in the project timeline, our interim safety enhancement measures have already been implemented this year , and we expect the Records Search to be completed by July 2012.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE SoCalGas Storage Interim Safety Measures - Records Search	FERC ACCT. 850
WITNESS Joseph Rivera	

PROJECT COST (\$000,000 IN 2011\$)	2011	2012	2013	2014	2015	2012-2015	Total
DIRECT LABOR	-	-	-	-	-	-	-
DIRECT NON-LABOR	0.030	0.021	-	-	-	0.021	0.051
TOTAL DIRECT O&M	0.030	0.021	-	-	-	0.021	0.051

Project Description

As ordered by the CPUC to validate the MAOP of all DOT defined transmission pipelines, SoCalGas and SDG&E embarked on an extensive records search covering over 4000 miles of pipeline with over 6000 unique segments. Although some of this information could be extracted from our High Pressure Pipeline Database, much of it was still in "line files" located locally at Region bases. A team that eventually exceeded 140 employees and contractors was assembled to data mine the files, review and analyze documentation, construct a "segment summary" by work order for the test data, scan supporting test documents, perform a quality control of test documents, and then categorize each segment. Charges to the memo account would be related to this incremental effort such as incremental costs for contractors to assist in the data mining and document scanning effort (note did not include company employee costs for this effort). These costs cover the SoCalGas Storage Records Search only

Forecast Methodology

Established unique work orders (MWO's) to track incremental costs associated with data mining effort in February 2011. Then used charges to these work orders through May and those of June as baselines. For the data mining effort, assumed data mining costs of contractors would be flat per month from July - Dec 2011 and Jan through July 2012. It was then assumed to be complete. All costs are for contractors only since company employees involved in the effort are covered through GRC funding.

Schedule

As noted in the project timeline, our interim safety enhancement measures have already been implemented this year , and we expect the Records Search to be completed by July 2012.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE SoCalGas Transmission Interim Safety Measures - Leak Survey & Pipeline Patrol	FERC ACCT. 863
WITNESS Joseph Rivera	

PROJECT COST (\$000,000 IN 2011\$)	2011	2012	2013	2014	2015	2012-2015	Total
DIRECT LABOR	0.045	0.070	0.065	0.060	0.040	0.235	0.280
DIRECT NON-LABOR	0.015	0.030	0.025	0.020	0.010	0.085	0.100
TOTAL DIRECT O&M	0.060	0.100	0.090	0.080	0.050	0.320	0.380

Project Description

As ordered by the CPUC to validate the MAOP of all DOT defined transmission pipelines, SoCalGas and SDG&E embarked on an extensive records search covering over 4000 miles of pipeline with over 6000 unique segments. Although some of this information could be extracted from our High Pressure Pipeline Database, much of it was still in “line files” located locally at Region bases. A team that eventually exceeded 140 employees and contractors was assembled to data mine the files, review and analyze documentation, construct a “segment summary” by work order for the test data, scan supporting test documents, perform a quality control of test documents, and then categorize each segment. For segments that sufficient strength test documentation to meet the NTSB criteria could not be found, SoCalGas and SDG&E implemented temporary remediation measures such as bi-monthly leak surveys and pipeline patrols, or lowering pressure in some segments. Charges to the memo account would be related to this incremental effort such as employee overtime pay to implement the additional leak surveys and pipeline patrols. These costs are of SoCalGas Transmission Leak Survey and Pipeline Patrol only.

Forecast Methodology

Established unique work orders (MWO's) to track incremental costs associated for the additional pipeline patrols and leak surveys in April 2011. Then used charges to these work orders through May and those of June as baselines. For the bi-monthly pipeline patrols and leakage surveys, the costs are primarily for overtime to perform the incremental patrols and surveys as well as non labor costs covering trucks, fuel etc. The same baseline numbers from the special tracking work orders were used through June 2011 which included only the first bi-monthly patrol. For July - Dec 2011 it was assumed 2 more incremental bi-monthly patrols and surveys would be conducted. Costs associated with an additional survey and patrol that would also be conducted as part of the regularly scheduled patrols and surveys was not included here. For 2012 it was assumed that there would be incremental 5 bi-monthly surveys conducted at the same cost rates as in the baseline. For 2013 for SoCalGas Transmission it was assumed that although as segments were remediated and patrols would taper off, additional patrols would be added to cover lines in phase 2. For 2014 and 2015 it was assumed the incremental patrols and leak surveys would decrease as segments were remediated.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE SoCalGas Transmission Interim Safety Measures - Leak Survey & Pipeline Patrol	FERC ACCT. 863
WITNESS Joseph Rivera	

Schedule

As noted in the project timeline, our interim safety enhancement measures have already been implemented this year , and we propose to continue implementing those measures until the execution of our proposed Pipeline Safety Enhancement Plan is complete. These measures if approved as part of this plan, will be implemented for Phase 2 pipelines upon completion of the Phase 2 records review process.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE SoCalGas Distribution Interim Safety Measures - Leak Survey & Pipeline Patrol	FERC ACCT. 874.102
WITNESS Joseph Rivera	

PROJECT COST (\$000,000 IN 2011\$)	2011	2012	2013	2014	2015	2012-2015	Total
DIRECT LABOR	0.065	0.110	0.072	0.045	0.030	0.257	0.322
DIRECT NON-LABOR	0.025	0.040	0.030	0.017	0.012	0.099	0.124
TOTAL DIRECT O&M	0.090	0.150	0.102	0.062	0.042	0.356	0.446

Project Description

As ordered by the CPUC to validate the MAOP of all DOT defined transmission pipelines, SoCalGas and SDG&E embarked on an extensive records search covering over 4000 miles of pipeline with over 6000 unique segments. Although some of this information could be extracted from our High Pressure Pipeline Database, much of it was still in “line files” located locally at Region bases. A team that eventually exceeded 140 employees and contractors was assembled to data mine the files, review and analyze documentation, construct a “segment summary” by work order for the test data, scan supporting test documents, perform a quality control of test documents, and then categorize each segment. For segments that sufficient strength test documentation to meet the NTSB criteria could not be found, SoCalGas and SDG&E implemented temporary remediation measures such as bi-monthly leak surveys and pipeline patrols, or lowering pressure in some segments. Charges to the memo account would be related to this incremental effort such as employee overtime pay to implement the additional leak surveys and pipeline patrols. These costs are of SoCalGas Distribution Leak Survey and Pipeline Patrol only.

Forecast Methodology

Established unique work orders (MWO's) to track incremental costs associated for the additional pipeline patrols and leak surveys in April 2011. Then used charges to these work orders through May and those of June as baselines. For the bi-monthly pipeline patrols and leakage surveys, the costs are primarily for overtime to perform the incremental patrols and surveys as well as non labor costs covering trucks, fuel etc. The same baseline numbers from the special tracking work orders were used through June 2011 which included only the first bi-monthly patrol. For July - Dec 2011 it was assumed 2 more incremental bi-monthly patrols and surveys would be conducted. Costs associated with an additional survey and patrol that would also be conducted as part of the regularly scheduled patrols and surveys was not included here. For 2012 it was assumed that there would be incremental 5 bi-monthly surveys conducted at the same cost rates as in the baseline. For 2013 for SoCalGas Distribution it was assumed that although as segments were remediated and patrols would taper off, additional patrols would be added to cover lines in phase 2. For 2014 and 2015 it was assumed the incremental patrols and leak surveys would decrease as segments were remediated.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE SoCalGas Distribution Interim Safety Measures - Leak Survey & Pipeline Patrol	FERC ACCT. 874.102
WITNESS Joseph Rivera	

Schedule

As noted in the project timeline, our interim safety enhancement measures have already been implemented this year , and we propose to continue implementing those measures until the execution of our proposed Pipeline Safety Enhancement Plan is complete. These measures if approved as part of this plan, will be implemented for Phase 2 pipelines upon completion of the Phase 2 records review process.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE SoCalGas Storage Interim Safety Measures - Leak Survey & Pipeline Patrol	FERC ACCT. 833
WITNESS Joseph Rivera	

PROJECT COST (\$000,000 IN 2011\$)	2011	2012	2013	2014	2015	2012-2015	Total
DIRECT LABOR	0.004	0.007	0.006	0.006	0.006	0.025	0.029
DIRECT NON-LABOR	0.002	0.003	0.002	0.002	0.002	0.009	0.011
TOTAL DIRECT O&M	0.006	0.010	0.008	0.008	0.008	0.034	0.040

Project Description

As ordered by the CPUC to validate the MAOP of all DOT defined transmission pipelines, SoCalGas and SDG&E embarked on an extensive records search covering over 4000 miles of pipeline with over 6000 unique segments. Although some of this information could be extracted from our High Pressure Pipeline Database, much of it was still in “line files” located locally at Region bases. A team that eventually exceeded 140 employees and contractors was assembled to data mine the files, review and analyze documentation, construct a “segment summary” by work order for the test data, scan supporting test documents, perform a quality control of test documents, and then categorize each segment. For segments that sufficient strength test documentation to meet the NTSB criteria could not be found, SoCalGas and SDG&E implemented temporary remediation measures such as bi-monthly leak surveys and pipeline patrols, or lowering pressure in some segments. Charges to the memo account would be related to this incremental effort such as employee overtime pay to implement the additional leak surveys and pipeline patrols. These costs are of SoCalGas Storage Leak Survey and Pipeline Patrol only.

Forecast Methodology

Established unique work orders (MWO's) to track incremental costs associated for the additional pipeline patrols and leak surveys in April 2011. Then used charges to these work orders through May and those of June as baselines. For the bi-monthly pipeline patrols and leakage surveys, the costs are primarily for overtime to perform the incremental patrols and surveys as well as non labor costs covering trucks, fuel etc. The same baseline numbers from the special tracking work orders were used through June 2011 which included only the first bi-monthly patrol. For July - Dec 2011 it was assumed 2 more incremental bi-monthly patrols and surveys would be conducted. Costs associated with an additional survey and patrol that would also be conducted as part of the regularly scheduled patrols and surveys was not included here. For 2012 to 2015 it was assumed that there would be incremental 5 bi-monthly surveys conducted at the same cost rates as in the baseline.

WORKPAPER TITLE SoCalGas Storage Interim Safety Measures - Leak Survey & Pipeline Patrol	FERC ACCT. 833
WITNESS Joseph Rivera	

Schedule

As noted in the project timeline, our interim safety enhancement measures have already been implemented this year , and we propose to continue implementing those measures until the execution of our proposed Pipeline Safety Enhancement Plan is complete. These measures if approved as part of this plan, will be implemented for Phase 2 pipelines upon completion of the Phase 2 records review process.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE Summary of SDG&E Interim Safety Measures	FERC ACCT. Various
WITNESS Joseph Rivera	

PROJECT COST (\$000,000 IN 2011\$)	2011	2012	2013	2014	2015	2012-2015	Total
DIRECT LABOR	0.003	0.006	0.006	0.006	0.006	0.024	0.027
DIRECT NON-LABOR	0.899	0.492	0.002	0.002	0.002	0.496	1.395
TOTAL DIRECT O&M	0.902	0.498	0.008	0.008	0.008	0.520	1.422

Project Description

As ordered by the CPUC to validate the MAOP of all DOT defined transmission pipelines, SoCalGas and SDG&E embarked on an extensive records search covering over 4000 miles of pipeline with over 6000 unique segments. Although some of this information could be extracted from our High Pressure Pipeline Database, much of it was still in "line files" located locally at Region bases. A team that eventually exceeded 140 employees and contractors was assembled to data mine the files, review and analyze documentation, construct a "segment summary" by work order for the test data, scan supporting test documents, perform a quality control of test documents, and then categorize each segment. For segments that sufficient strength test documentation to meet the NTSB criteria could not be found, SoCalGas and SDG&E implemented temporary remediation measures such as bi-monthly leak surveys and pipeline patrols, or lowering pressure in some segments. Charges to the memo account would be related to this incremental effort such as employee overtime pay to implement the additional leak surveys and pipeline patrols, incremental costs for contractors to assist in the data mining and document scanning effort (note did not include company employee costs for this effort), or incremental costs associated with the installation of temporary pressure control equipment to facilitate pressure lowering of some segments.

WORKPAPER TITLE Summary of SDG&E Interim Safety Measures	FERC ACCT. Various
WITNESS Joseph Rivera	

Forecast Methodology

Established unique work orders (MWO's) to track incremental costs associated with data mining effort in February 2011 and for the additional pipeline patrols and leak surveys in April 2011. Then used charges to these work orders through May and those of June as baselines. For the data mining effort, assumed data mining costs of contractors would be flat per month from July - Dec 2011 and Jan through July 2012. It was then assumed to be complete. All costs are for contractors only since company employees involved in the effort are covered through GRC funding. For the bi-monthly pipeline patrols and leakage surveys, the same baseline numbers from the special tracking work orders were used through June 2011 which included only the first bi-monthly patrol. For July - Dec 2011 it was assumed 2 more incremental bi-monthly patrols and surveys would be conducted. Costs associated with an additional survey and patrol that would also be conducted as part of the regularly scheduled patrols and surveys was not included here. For SDG&E Transmission and Distribution, from 2012 to 2015 it was assumed that patrols and survey costs would be incremental 5 patrols per year since the remediation of lines in SDG&E are expected to take longer to design, permit and construct.

Please see the following workpapers for more details:

- SDG&E Transmission Interim Safety Measures - Records Search
- SDG&E Distribution Interim Safety Measures - Records Search
- SDG&E Transmission Interim Safety Measures - Pipeline Patrol & Leak Survey
- SDG&E Distribution Interim Safety Measures - Pipeline Patrol & Leak Survey

Schedule

As noted in the project timeline, our interim safety enhancement measures have already been implemented this year , and we propose to continue implementing those measures until the execution of our proposed Pipeline Safety Enhancement Plan is complete. These measures if approved as part of this plan, will be implemented for Phase 2 pipelines upon completion of the Phase 2 records review process.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE SDG&E Transmission Interim Safety Measures - Records Search	FERC ACCT. 850
WITNESS Joseph Rivera	

PROJECT COST (\$000,000 IN 2011\$)	2011	2012	2013	2014	2015	2012-2015	Total
DIRECT LABOR	-	-	-	-	-	-	-
DIRECT NON-LABOR	0.300	0.165	-	-	-	0.165	0.465
TOTAL DIRECT O&M	0.300	0.165	-	-	-	0.165	0.465

Project Description

As ordered by the CPUC to validate the MAOP of all DOT defined transmission pipelines, SoCalGas and SDG&E embarked on an extensive records search covering over 4000 miles of pipeline with over 6000 unique segments. Although some of this information could be extracted from our High Pressure Pipeline Database, much of it was still in “line files” located locally at Region bases. A team that eventually exceeded 140 employees and contractors was assembled to data mine the files, review and analyze documentation, construct a “segment summary” by work order for the test data, scan supporting test documents, perform a quality control of test documents, and then categorize each segment. Charges to the memo account would be related to this incremental effort such as incremental costs for contractors to assist in the data mining and document scanning effort (note did not include company employee costs for this effort). These costs cover the SDG&E Transmission Records Search only

Forecast Methodology

Established unique work orders (MWO's) to track incremental costs associated with data mining effort in February 2011. Then used charges to these work orders through May and those of June as baselines. For the data mining effort, assumed data mining costs of contractors would be flat per month from July - Dec 2011 and Jan through July 2012. It was then assumed to be complete. All costs are for contractors only since company employees involved in the effort are covered through GRC funding.

Schedule

As noted in the project timeline, our interim safety enhancement measures have already been implemented this year , and we expect the Records Search to be completed by July 2012.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE SDG&E Distribution Interim Safety Measures - Records Search	FERC ACCT. 850
WITNESS Joseph Rivera	

PROJECT COST (\$000,000 IN 2011\$)	2011	2012	2013	2014	2015	2012-2015	Total
DIRECT LABOR	-	-	-	-	-	-	-
DIRECT NON-LABOR	0.597	0.325	-	-	-	0.325	0.922
TOTAL DIRECT O&M	0.597	0.325	-	-	-	0.325	0.922

Project Description

As ordered by the CPUC to validate the MAOP of all DOT defined transmission pipelines, SoCalGas and SDG&E embarked on an extensive records search covering over 4000 miles of pipeline with over 6000 unique segments. Although some of this information could be extracted from our High Pressure Pipeline Database, much of it was still in "line files" located locally at Region bases. A team that eventually exceeded 140 employees and contractors was assembled to data mine the files, review and analyze documentation, construct a "segment summary" by work order for the test data, scan supporting test documents, perform a quality control of test documents, and then categorize each segment. Charges to the memo account would be related to this incremental effort such as incremental costs for contractors to assist in the data mining and document scanning effort (note did not include company employee costs for this effort). These costs cover the SDG&E Distribution Records Search only

Forecast Methodology

Established unique work orders (MWO's) to track incremental costs associated with data mining effort in February 2011. Then used charges to these work orders through May and those of June as baselines. For the data mining effort, assumed data mining costs of contractors would be flat per month from July - Dec 2011 and Jan through July 2012. It was then assumed to be complete. All costs are for contractors only since company employees involved in the effort are covered through GRC funding.

Schedule

As noted in the project timeline, our interim safety enhancement measures have already been implemented this year , and we expect the Records Search to be completed by July 2012.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE SDG&E Transmission Interim Safety Measures - Leak Survey & Pipeline Patrol	FERC ACCT. 863
WITNESS Joseph Rivera	

PROJECT COST (\$000,000 IN 2011\$)	2011	2012	2013	2014	2015	2012-2015	Total
DIRECT LABOR	0.002	0.004	0.004	0.004	0.004	0.016	0.018
DIRECT NON-LABOR	0.001	0.001	0.001	0.001	0.001	0.002	0.004
TOTAL DIRECT O&M	0.003	0.005	0.005	0.005	0.005	0.018	0.022

Project Description

As ordered by the CPUC to validate the MAOP of all DOT defined transmission pipelines, SoCalGas and SDG&E embarked on an extensive records search covering over 4000 miles of pipeline with over 6000 unique segments. Although some of this information could be extracted from our High Pressure Pipeline Database, much of it was still in “line files” located locally at Region bases. A team that eventually exceeded 140 employees and contractors was assembled to data mine the files, review and analyze documentation, construct a “segment summary” by work order for the test data, scan supporting test documents, perform a quality control of test documents, and then categorize each segment. For segments that sufficient strength test documentation to meet the NTSB criteria could not be found, SoCalGas and SDG&E implemented temporary remediation measures such as bi-monthly leak surveys and pipeline patrols, or lowering pressure in some segments. Charges to the memo account would be related to this incremental effort such as employee overtime pay to implement the additional leak surveys and pipeline patrols. These costs are of SDG&E Transmission Leak Survey and Pipeline Patrol only.

Forecast Methodology

Established unique work orders (MWO's) to track incremental costs associated for the additional pipeline patrols and leak surveys in April 2011. Then used charges to these work orders through May and those of June as baselines. For the bi-monthly pipeline patrols and leakage surveys, the costs are primarily for overtime to perform the incremental patrols and surveys as well as non labor costs covering trucks, fuel etc. The same baseline numbers from the special tracking work orders were used through June 2011 which included only the first bi-monthly patrol. For July - Dec 2011 it was assumed 2 more incremental bi-monthly patrols and surveys would be conducted. Costs associated with an additional survey and patrol that would also be conducted as part of the regularly scheduled patrols and surveys was not included here. For SDG&E Transmission from 2012 to 2015 it was assumed that patrols and survey costs would be incremental 5 patrols per year since the remediation of lines in SDG&E are expected to take longer to design, permit and construct.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE SDG&E Transmission Interim Safety Measures - Leak Survey & Pipeline Patrol	FERC ACCT. 863
WITNESS Joseph Rivera	

Schedule

As noted in the project timeline, our interim safety enhancement measures have already been implemented this year , and we propose to continue implementing those measures until the execution of our proposed Pipeline Safety Enhancement Plan is complete. These measures if approved as part of this plan, will be implemented for Phase 2 pipelines upon completion of the Phase 2 records review process.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE SDG&E Distribution Interim Safety Measures - Leak Survey & Pipeline Patrol	FERC ACCT. 874.102
WITNESS Joseph Rivera	

PROJECT COST (\$000,000 IN 2011\$)	2011	2012	2013	2014	2015	2012-2015	Total
DIRECT LABOR	0.001	0.002	0.002	0.002	0.002	0.008	0.009
DIRECT NON-LABOR	0.001	0.001	0.001	0.001	0.001	0.004	0.005
TOTAL DIRECT O&M	0.002	0.003	0.003	0.003	0.003	0.012	0.014

Project Description

As ordered by the CPUC to validate the MAOP of all DOT defined transmission pipelines, SoCalGas and SDG&E embarked on an extensive records search covering over 4000 miles of pipeline with over 6000 unique segments. Although some of this information could be extracted from our High Pressure Pipeline Database, much of it was still in "line files" located locally at Region bases. A team that eventually exceeded 140 employees and contractors was assembled to data mine the files, review and analyze documentation, construct a "segment summary" by work order for the test data, scan supporting test documents, perform a quality control of test documents, and then categorize each segment. For segments that sufficient strength test documentation to meet the NTSB criteria could not be found, SoCalGas and SDG&E implemented temporary remediation measures such as bi-monthly leak surveys and pipeline patrols, or lowering pressure in some segments. Charges to the memo account would be related to this incremental effort such as employee overtime pay to implement the additional leak surveys and pipeline patrols. These costs are of SDG&E Distribution Leak Survey and Pipeline Patrol only.

Forecast Methodology

Established unique work orders (MWO's) to track incremental costs associated for the additional pipeline patrols and leak surveys in April 2011. Then used charges to these work orders through May and those of June as baselines. For the bi-monthly pipeline patrols and leakage surveys, the costs are primarily for overtime to perform the incremental patrols and surveys as well as non labor costs covering trucks, fuel etc. The same baseline numbers from the special tracking work orders were used through June 2011 which included only the first bi-monthly patrol. For July - Dec 2011 it was assumed 2 more incremental bi-monthly patrols and surveys would be conducted. Costs associated with an additional survey and patrol that would also be conducted as part of the regularly scheduled patrols and surveys was not included here. For SDG&E Distribution, from 2012 to 2015 it was assumed that patrols and survey costs would be incremental 5 patrols per year since the remediation of lines in SDG&E are expected to take longer to design, permit and construct.

OPERATIONS AND MAINTENANCE WORKPAPER

WORKPAPER TITLE SDG&E Distribution Interim Safety Measures - Leak Survey & Pipeline Patrol	FERC ACCT. 874.102
WITNESS Joseph Rivera	

Schedule

As noted in the project timeline, our interim safety enhancement measures have already been implemented this year , and we propose to continue implementing those measures until the execution of our proposed Pipeline Safety Enhancement Plan is complete. These measures if approved as part of this plan, will be implemented for Phase 2 pipelines upon completion of the Phase 2 records review process.