

**2016 Risk Assessment Mitigation Phase  
Investigation 16-10-016  
Workpapers to  
Employee, Contractor, Customer, and  
Public Safety  
(Chapter SCG-2-WP)**

January 2017



2016 Risk Assessment Mitigation Phase  
SCG-02-WP  
Risk: Employee, Contractor, Customer, and Public Safety (O&M)

Line No.	Mitigation	Project/Program	Project/Program Description	Recorded (Directs, 2015 \$000)						Forecast Range (Directs, 2015 \$000)						Forecast Methodology
				Status	2011	2012	2013	2014	2015	2017 Low	2017 High	2018 Low	2018 High	2019 Low	2019 High	
1	Policy, Procedures, Standards, and ESCMP	Development and management of formal procedures, processes and standards is performed by Customer Service Field (CSF) Staff	Development and management of formal procedures, processes and standards is performed by CSF Staff	B	\$ -	\$ -	\$ -	\$ -	\$ 1,305	\$ 1,174	\$ 1,435	\$ 1,174	\$ 1,435	\$ 1,174	\$ 1,435	Base Year
2		Facility Site Inspections	The Facilities Operations group is responsible for the construction and maintenance of facilities	B	556	1,189	529	1,073	540	418	510	418	510	418	510	Base Year
3		Environmental Services and Safety Compliance Management Program (ESCMP)	Internal Environmental and Safety compliance certification program	B	100	103	106	109	112	101	124	101	124	101	124	Base Year
4		Environmental Self-Assessment	The environmental self-assessment process supports the day-to-day compliance of company operations which are subject to applicable federal, state and local environmental laws, regulations, rules and company policies, standards and procedures	B	454	467	472	494	415	439	536	439	536	439	536	Zero Based
5		Investigation of environmental exposure incidents	Tracking and reporting of agency inspections and addressing environmental incidents	B	442	441	429	509	554	444	543	444	543	444	543	Zero Based
6		Proposition 65	Program to comply with the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)	B	17	17	18	18	19	17	21	17	21	17	21	Base Year
7		Line management's Health & Safety site inspections	Line management's Health & Safety site inspections	B	-	-	-	-	754	679	829	679	829	679	829	Base Year
8		Development and management of formal gas standards, procedures and processes for Gas Distribution, Transmission and Storage	Evaluation includes the time of the Standard Owner to complete initial review, coordinate inputs, make changes and complete processing	B	-	-	-	-	1,500	1,350	1,650	1,350	1,650	1,350	1,650	Base Year
9		Document management and communications of Gas Standards	Involves the management of the Document Management System, including the development, publication & maintenance process of the SoCalGas & SDG&E plans to comply to pipeline safety regulations (49 CFR Parts 191-193) and CPUC General Orders 112-E, 58A & 58B in addition to the Company Operations Standards, Form Instructions, Manuals (Safety, IIPP, DIMP/TIMP, Gas Operator Safety Plan, Welding Specs, etc.)	B	100	100	100	100	100	90	110	90	110	90	110	Base Year
10	Policy, Procedures, Standards, and ESCMP Subtotal				1,669	2,317	1,654	2,303	5,299	4,712	5,758	4,712	5,758	4,712	5,758	
11	Employee Skills Training	CSR Training (Student & Instructor for Emergency Orders & Ergonomics Training)	CSR - Student & Instructor training includes a segment for handling Emergency Orders & proper ergonomics	B	60	62	64	66	68	65	85	65	85	61	85	Base Year
12		Development and management of formal training materials and instructions is performed by CSF Centralized Training	- Development and management of formal training materials and instructions is performed by CSF Centralized Training - Once an employee has successfully bid into a job they begin formalized training. Contractors also go through formalized training	B	-	-	-	-	5,213	5,114	6,729	4,823	6,345	4,479	6,220	Zero Based
13		Meter Reader Training	Formalized training required for job progression or entry into a specific classification Meter Reading	B	-	-	-	-	538	231	304	231	304	219	304	Zero Based
14		Formal Skills Training - Distribution Employee Time	Distribution employee skills training, base safety meeting and annual documents review		2,320	3,592	3,648	4,647	4,428	4,734	6,229	4,734	6,229	4,485	6,229	Zero Based

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15		Formal Skills Training - Transmission Employee Time	Distribution employee skills training, base safety meeting and annual documents review	B	233	284	433	437	416	445	585	445	585	421	585	Zero Based
16		Formal Skills Training - Storage Employee Time	Formal Skills Training - Storage Employee Time	B	199	157	131	276	275	294	386	294	386	278	386	Zero Based
17		Formal Skills Training - Instructor Time	Formal Skills Training - Instructor Time	B	485	486	597	302	537	574	755	574	755	544	755	Zero Based
18		Expand "Situation City"	Expand "Situation City" training props at Pico Rivera campus - props, sheds and simulation capabilities to increase number of classes conducted per year	P						367	448	391	510	417	510	Zero Based
19		Expand skills training period by 10% for Wellness & Fitness Training	Enhanced training would be for Meter Reading, MSA Inspection Reps, ETRs, and CTs	P						-	-	-	1,129	924	1,129	Zero Based
20		Expand Courses with Smith System of Defensive Driving by One Day	This 1 day expansion is for initial training for all new hires, or office employees who bid into jobs that require driving. Applicable to all employees who are required to drive a company vehicle	P						-	-	-	192	157	192	Zero Based
21		Provide Smith Driving Training for 10% of Non-Smith trained employees who drive less than 3,000 miles per year	Provide Smith Driving Training for 10% of Non-Smith trained employees who drive less than 3,000 miles per year	P						-	-	-	131	108	131	Zero Based
22	Employee Skills Training Subtotal				3,297	4,581	4,873	5,728	11,475	11,824	15,521	11,557	16,651	12,093	16,526	
23	Employee Refresher Training	Safety Training - CSR	Each year, CSR's are required to attend a safety refresher course, length of each meeting is approximately 1 hour	B	24	24	25	26	27	24	29	24	29	24	29	Base Year
24		Mandatory refresher training for field employees	Mandatory refresher training for field employee are conducted at the local districts once a year during the annual review. These formal reviews/training are administered by local supervision	B	-	-	-	-	3,608	4,145	5,066	4,062	4,965	3,981	4,865	Zero Based
25		Program management for Operator Qualification initial qualifications and recertifications	Program is mandated. Extension of program tasks and recertification period is recommended best practice (PHSMA)	B	660	697	722	735	747	672	822	672	822	672	822	Base Year
26		Annual review of standards	Annual review of standards. This is done as refresher for employees on various standard/procedures used in the workplace	B	3,242	3,371	3,754	4,011	3,691	3,322	4,060	3,322	4,060	3,322	4,060	Base Year
27		Environmental Training	Development and implementation of environmental training of all SoCalGas non-represented, non-management and management employees	B	4,381	4,505	4,632	4,763	772	695	849	695	849	695	849	Base Year
28		Expand in vehicle instruction for all driving employees	Expand in-vehicle instruction to one day/employee/year	P						205	251	253	309	1,806	2,208	Zero Based
29	Employee Refresher Training Subtotal				8,307	8,597	9,133	9,535	8,845	9,063	11,077	9,028	11,034	10,500	12,833	
30	Contractor Management and Traffic Control	Quality Review	This team will complete the formal discussion and reviews with contractors. The field will submit the FACT form on the performance observations	B	100	100	100	100	560	504	616	504	616	504	616	Base Year
31		Job Inspections Contractor Crews - Transmission	100% inspection completed on contractor work by 3rd party inspection vendors. With each inspection a performance report is completed and saved with the job package	B	-	-	2,529	4,020	6,251	5,626	6,876	5,626	6,876	5,626	6,876	Base Year

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				Status	2011	2012	2013	2014	2015	2017 Low	2017 High	2018 Low	2018 High	2019 Low	2019 High	
32		Medium Pressure Contractor Inspections <sup>1</sup>	These inspections are completed on capital jobs by the Contractor Inspectors (1 in each area) plus support from the area FOS and Team Leads. Inspectors to complete a FACT form to record their findings - both performance overall and work elements	B	-	-	-	-	1,500	1,350	1,650	1,350	1,650	1,350	1,650	Zero Based
33		Contractor close-call/near miss reporting and lessons learned sharing program	Contractors need to actively promote reporting of occupational and pipeline safety near-misses/close-calls. The experience gleaned from these cases as well as actual incidents, needs to be shared with other contractors and within the Company to prevent future incidents	P						-	-	-	-	180	220	Zero Based
34		Ongoing Inspections/Audits of Contractors	In addition to Sempra Energy's Audit Services Department's contractor audits, there is a need for an enhanced process of onsite/in-field contractor inspections/audits at both contractor sites and Company construction offices to ensure compliance with safety and quality protocols	P						-	-	-	-	180	220	Zero Based
35		Enhanced oversight and controls for Transmission, Storage, Engineering, Environmental, and Integrity Contractors	To replicate the success achieved with the current enhanced Distribution Contractor oversight program, expand same methods to Transmission, Storage, Engineering, Environmental, and Integrity Contractors, e.g., formal contractor quarterly meetings to review program level conformance with safety, quality, compliance, and cost management	P					100	90	110	90	110	270	330	Zero Based
36		Analysis of contractor construction inspection data	Contractor pipeline construction inspection data is being collected. This data needs to be reviewed for accuracy, completeness and consistency. As needed, follow-up will occur with operating units and contractors, an/or adjustments made to data collection tools	P						-	-	-	-	180	220	Zero Based
37	<b>Contractor Management and Traffic Control Subtotal</b>				<b>100</b>	<b>100</b>	<b>2,629</b>	<b>4,120</b>	<b>8,411</b>	<b>7,570</b>	<b>9,252</b>	<b>7,570</b>	<b>9,252</b>	<b>8,290</b>	<b>10,132</b>	
38	QA, Job Observations, Field Rides, and Job Monitoring	Quality Observations of CSR	QA employee's review call types to determine if CSR's are responding correctly	B	21	22	22	24	22	21	26	21	26	21	26	Base Year
39		QA inspection are performed on random sampling of orders that have been completed by field technicians.	This inspection helps identify whether formal policy and procedures are being adhered to. It can identify errors or mistakes made in repairs or diagnosis and inspections	B	-	-	-	-	2,048	1,881	2,299	1,845	2,254	1,809	2,211	Base Year
40		Field rides and job observations by local supervision	Local supervision that employees report to are required (internal requirement) to perform a certain number of field rides and job observation for each employee every year and document the results of their observation	B	-	-	-	-	1,054	937	1,145	918	1,122	900	1,100	Zero Based
41		QA and QC programs	This program was started under the DIMP program funding and effective 2016 has morphed into our regular operations	B	-	359	1,069	1,637	1,346	1,212	1,481	1,212	1,481	1,212	1,481	Base Year

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				Status	2011	2012	2013	2014	2015	2017 Low	2017 High	2018 Low	2018 High	2019 Low	2019 High	
42		High Pressure Standby - Distribution	This is review at the 3rd party job site to ensure safety of SoCalGas system. The locations are often result of Locate & Mark tickets	B	885	973	1,228	1,401	1,604	1,444	1,764	1,444	1,764	1,444	1,764	Base Year
43		Field/Office Employee Job Observation (Safety Observations) - Distribution, Transmission, Customer Services Field	Management will often conduct a safety observation of field and office employees. The observations are recorded within the FACT system (and discussed with employee). The cost estimates herein includes Distribution Transmission, and CSF observations for Field Work, office work and Smith Driving	B	-	-	-	-	191	172	210	172	210	172	210	Base Year
44		QA Auditors	Monitor the performance of employees working in job classifications not currently audited	P						409	500	425	520	442	540	Zero Based
45	QA, Job Observations, Field Rides, and Job Monitoring Subtotal				906	1,354	2,319	3,062	6,265	6,076	7,425	6,037	7,377	6,000	7,332	
46	Safety Communications and First Responder Liaison	Customer Communications - Safety	Customer Communications (MyAccounts, Bill Inserts, etc.)	B	-	-	-	-	1,700	824	1,008	824	1,008	824	1,008	Zero Based
47		Web content development pertaining to safety	Web content development pertaining to safety	B	625	1,087	769	857	936	842	1,030	842	1,030	842	1,030	Base Year
48		First Responder briefings and emergency preparedness activities	First Responder briefings and emergency preparedness activities	B	-	-	-	-	1,194	1,074	1,313	1,074	1,313	1,074	1,313	Base Year
49		Update customer contact information for access purposes	Program to update customer contact information for access purposes (supporting Leak Survey, above ground pipeline & facility inspections, etc.)	P						962	1,176	962	1,176	962	1,176	Zero Based
50	Safety Communications and First Responder Liaison Subtotal				625	1,087	769	857	3,830	3,702	4,527	3,702	4,527	3,702	4,527	
51	Environmental Services Monitoring	Service Contracting for third-party waste disposal review	Service contracting for third-party waste disposal reviews. Additional risk reduction measures include standard Health & Safety and Environmental language and insurance obligations in purchase and service contracts, due diligence reviews of third-party waste disposal sites	B	75	84	90	142	161	165	201	165	201	165	201	Zero Based
52		Third Party Waste Disposal and Management	Management of hazardous and non-hazardous waste disposal facilities	B	22	23	23	24	25	23	28	23	28	23	28	Base Year
53		Service Contracting - Supplier Conformance	Monitoring of supplier conformance to safety provisions with service contract	B	-	-	-	-	58	56	69	60	73	69	84	Base Year
54		Asbestos Safety Program	Provide guidance for identifying and managing asbestos-containing material by SoCalGas employees	B	717	757	740	706	656	721	882	721	882	721	882	Zero Based
55	Environmental Services Monitoring Subtotal				814	864	853	872	900	965	1,180	969	1,184	978	1,195	
56	Safety, Industrial Hygiene, Wellness, and Emergency Services/Programs	SWES Director	Provides overall strategic vision to improve the organization's safety culture that will lead to an incident free workplace	B	330	399	822	621	489	440	538	440	538	440	538	Base Year
57		Field Safety	Safety support staff provides services to positively influence safety culture & safety best practices for Customer Services, Distribution, Transmission and Storage field employees	B	1,300	1,729	1,408	2,232	2,312	2,080	2,543	2,080	2,543	2,080	2,543	Base Year

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				Status	2011	2012	2013	2014	2015	2017 Low	2017 High	2018 Low	2018 High	2019 Low	2019 High	
58		Safety Programs	Safety support staff that creates and develops programs, looks for emerging technologies, analyze industry best practices and benchmark with other utilities to obtain solutions to mitigate/eliminate incidents	B	587	1,123	1,264	1,205	1,049	944	1,154	944	1,154	944	1,154	Base Year
59		Wellness	The Wellness team administers DOT drug testing requirements for DOT safety sensitive jobs, monitors contractor DOT requirements and compliance, and assist employees with wellness issues	B	715	719	726	737	787	708	865	708	865	708	865	Base Year
60		Emergency Services	Oversee and administers the utility emergency response & incident reporting to regulatory agencies	B	584	737	997	950	794	714	873	714	873	714	873	Base Year
61		Safety Training	Safety training provided by Field Safety Advisors such as coaching & mentoring through quality Job Observations.	B	-	-	-	-	76	68	84	68	84	68	84	Base Year
62		Safety Incident Investigations	Incident evaluations provided by Field Safety Advisors for all field related incidents which includes: Controllable Motor Incidents, OSHAs and Lost Time Incidents	B	-	-	-	-	840	756	924	756	924	756	924	Base Year
63		Wellness	SWES support staff provides services to positively influence safety culture & safety best practices, administer DOT drug testing requirements, assist employees with wellness issues and administer utility emergency response & incident reporting	B	-	-	-	-	120	108	132	108	132	108	132	Base Year
64		Emergency Services Training	Provides annual training to field management employees for incident that requires Message Center Reporting	B	-	-	-	-	1,194	1,074	1,313	1,074	1,313	1,074	1,313	Base Year
65		Dedicated Safety positions to support CCC	The CCC has one employee dedicated to safety related issues for the two call center locations. Each Contact Center location also has two supervisors that specialize in safety related issues. There is a desire to form Safety Committee's at each of the two locations as well. The safety advisor is also responsible for training supervisors how to use the Safety Incident Management System (SIMS)	B	123	126	130	134	137	124	151	124	151	124	151	Base Year
66		Driver License Pull Notice Program	The Employer Pull Notice (EPN) Program was established to provide employers and regulatory agencies with a means of promoting driver safety through the ongoing review of driver records	P						-	-	-	-	102	124	Zero Based
67		Telematics O&M	3 year SHaaS (Lease/License) agreement (includes hardware fee in monthly fee)	P						150	183	150	183	3,237	3,956	Zero Based
68		High Frequency Radio System	High frequency radio system (EOC interface with HQ, districts and regulatory/municipal EOCs)	P						-	-	-	-	702	858	Zero Based
69		Safety Professional Investigators	Enhance the field safety program to have 4-6 safety professional investigators. This would range from new supervisor development to lead accident investigations	P						-	-	-	-	706	863	Zero Based

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					2011	2012	2013	2014	2015	2017 Low	2017 High	2018 Low	2018 High	2019 Low	2019 High	
70	Safety, Industrial Hygiene, Wellness, and Emergency Services/Programs Subtotal				3,639	4,833	5,347	5,879	7,798	7,166	8,760	7,166	8,760	11,763	14,378	
71	PPE and Safety Equipment	CSF safety equipment	Employees are provided with all necessary safety equipment in order to ensure the safety of both employees and the public	B	-	-	-	-	758	669	818	655	801	642	785	Zero Based
72		Meter Reading safety equipment	Employees are provided with all necessary safety equipment in order to ensure the safety of both employees and the public	B	-	-	-	-	144	65	79	65	79	65	79	Zero Based
73		Company wide purchases of personal protective equipment (PPE)	Cost basis of the purchases for inventory replenishment of PPE materials	B	579	463	466	568	675	608	743	608	743	608	743	Base Year
74		Uniform Expenses - Distribution, Transmission, Storage	Uniform rentals for employees - both protective and general public recognition for security	B	816	769	795	1,028	1,005	905	1,106	905	1,106	905	1,106	Base Year
75		Drop test tool for low flow measurements	Increase in on-premises time for entered turn on orders. On-going tool maintenance & new tools	P						1,233	1,507	1,233	1,507	1,233	1,507	Zero Based
76		Confined space air monitoring system for field personnel	Replace 280 confined space monitors in 2018. Replace 380 personal monitors in 2018. 100 calibration gas cylinders purchased per year	P						18	22	18	22	18	22	Zero Based
77		Technology/process to address intermittently electrified facility risk	A relatively low cost multimeter can be used as a warning system	P						297	363	41	50	54	66	Zero Based
78		Lone Worker Safety System	Use smartphones with lone worker application installed and monitored by Dispatch. Only issued to single operators in the field	P						1,323	1,617	567	693	567	693	Zero Based
79	PPE and Safety Equipment Subtotal				1,395	1,232	1,261	1,596	2,582	5,118	6,255	4,092	5,001	4,092	5,001	
80	Gas Facility and Pipeline Inspections	CSF inspections and survey	CSF performs inspections and surveys as part of their normal activities on both customer and company generated work. Some examples are MSA Inspection and Bar policy	B	-	-	-	-	6,291	5,662	6,920	5,662	6,920	5,662	6,920	Base Year
81		Leak Survey - Distribution	Completion of the routine leak survey requirements. Excluded Special Leak Survey since often done for other construction efforts	B	6,539	7,650	8,463	10,060	9,202	8,282	10,122	8,282	10,122	12,150	14,850	Base Year
82		CP 10% Reads - "Inspections" on Distribution system	CP 10% Reads - "Inspections" on Distribution system	B	809	902	869	806	856	770	942	770	942	846	1,034	Base Year
83		Pipeline Patrols, Bridge & Span Inspections, Odorization - Transmission <sup>1</sup>	Pipeline Patrols, Bridge & Span Inspections, Odorization - Transmission	B	-	-	-	52	484	586	648	586	648	586	648	Base Year: Bridge & Span Inspections; 5-Year Average: Odorization
84		Meter & Regulator Station Inspections - Distribution	Meter & Regulator Station Inspections - Distribution	B	-	-	-	-	1,280	1,152	1,408	1,152	1,408	1,287	1,573	Base Year
85		Bridge and Span Inspections - Distribution	Bridge and Span Inspections - Distribution	B	1,254	2,232	1,384	1,567	1,381	1,243	1,519	1,243	1,519	1,094	1,338	Base Year
86		Sewer Lateral Inspection Project	Sewer Lateral Inspection Project	B	-	-	-	-	3,014	6,165	7,535	6,165	7,535	6,165	7,535	Zero Based
87		TIMP Inspection Costs	TIMP Inspection Costs	B	-	-	-	-	31,960	-	-	-	-	44,930	49,650	Base Year
88		Increased costs for inspection of above ground pipe and facilities	MSA Inspections	P						-	-	-	-	4,997	7,808	Zero Based
89	Gas Facility and Pipeline Inspections Subtotal				8,602	10,784	10,716	12,485	54,468	23,860	29,094	23,860	29,094	77,717	91,356	
90	Safety-related Field Orders (leaks, appliance check and unusual use, etc.)	Leak order processing	A leak order will produce an emergency order. Training for handling an emergency order is handled in CSR - 4 trainings	B	671	689	715	741	830	762	931	770	941	777	950	Base Year

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91		CSF safety inspections and surveys	CSF performs safety inspections and surveys as part of their normal activities on both customer and company generated work. Some examples are safety inspection of appliance at customer's request, and inspection of MSA while performing work at a meter	B	-	-	-	-	11,605	10,386	12,694	10,386	12,694	10,386	12,694	Zero Based
92		CSF responds to all reports of gas leaks	CSF responds to all reports of gas leaks. CSF is normally first on site and if distribution is needed the call is made by the responding CSF employee	B	-	-	-	-	6,166	5,549	6,783	5,549	6,783	5,549	6,783	Base Year
93		Natural Gas Appliance Test (NGAT)	After performing certain energy efficiency measures, such as weather-stripping, caulking, or window and door repair that affect air infiltration, contractors are required to check the safe functioning of all gas appliances in the home	B	1,438	2,729	2,404	2,103	1,650	1,485	1,815	1,485	1,815	1,485	1,815	Base Year
94		Increased field investigations	Increased field investigations – Advanced Meter data analytics will identify atypical/unusual consumption patterns and monitor tamper alarms that will require investigation and follow up work	P						918	1,122	918	1,122	918	1,122	Zero Based
95		Enhanced Natural Gas Leak Orders (NGAT)	Natural Gas Appliance Test (NGAT) - Energy Savings Assistance Program (DAP CO Testing)	P						1,737	2,123	1,809	2,211	1,809	2,211	Zero Based
96	Safety-related Field Orders (leaks, appliance check and unusual use, etc.) Subtotal				2,109	3,418	3,119	2,844	20,251	20,837	25,468	20,917	25,566	20,924	25,575	
97	TOTAL				\$ 31,463	\$ 39,167	\$ 42,673	\$ 49,281	\$ 130,124	\$ 100,893	\$ 124,317	\$ 99,610	\$ 124,204	\$ 160,771	\$ 194,613	

Notes:

- Baseline (B) and Proposed (P).
- Numbers in risk chapter tables may differ due to rounding.
- The purpose of Risk Assessment Mitigation Phase (RAMP) is not to request funding. Any funding requests will be made in the General Rate Case (GRC). The forecasts for mitigations are not for funding purposes, but are rather to provide a range for the future GRC filing. This range will be refined with supporting testimony in the GRC.

<sup>1</sup> Controls/Mitigations for which numbers in risk chapter tables may differ due to calculation errors.



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Risk: Employee, Contractor, Customer, and Public Safety (Capital)

Line No.	Mitigation	Project/Program	Project/Program Description	Status	Recorded (Directs, 2015 \$000)					Forecast Range (Directs, 2015 \$000)						2017-2019 Low (Sum)	2017-2019 High (Sum)	Forecast Methodology
					2011	2012	2013	2014	2015	2017 Low	2017 High	2018 Low	2018 High	2019 Low	2019 High			
1	Employee Refresher Training	Program management for Operator Qualification initial qualifications and recertifications	Program is mandated. Extension of program tasks and recertification period is recommended best practice (PHSMA)	B	\$ -	\$ 1	\$ 1	\$ -	\$ 10	\$ 9	\$ 11	\$ 9	\$ 11	\$ 9	\$ 11	\$ 27	\$ 33	Base Year
2		Annual review of standards	Annual review of standards. This is done as refresher for employees on various standard/procedures used in the workplace	B	1,143	1,145	1,353	1,215	1,045	941	1,150	941	1,150	941	1,150	2,823	3,450	Base Year
3	<b>Employee Refresher Training Subtotal</b>				<b>1,143</b>	<b>1,146</b>	<b>1,354</b>	<b>1,215</b>	<b>1,055</b>	<b>950</b>	<b>1,161</b>	<b>950</b>	<b>1,161</b>	<b>950</b>	<b>1,161</b>	<b>2,850</b>	<b>3,483</b>	
4	Contractor Management and Traffic Control	Medium Pressure Contractor Inspections <sup>1</sup>	These inspections are completed on capital jobs by the Contractor Inspectors (1 in each area) plus support from the area FOS and Team Leads. Inspectors to complete a FACT form to record their findings - both performance overall and work elements	B	-	-	-	-	-	-	-	-	-	-	-	-	-	
5		Contracting for Traffic Control Delineation Materials	Contracting for Traffic Control Delineation Materials	B	2,669	2,683	2,377	2,073	3,065	2,758	3,371	2,758	3,371	2,758	3,371	8,274	10,113	Base Year
6	<b>Contractor Management and Traffic Control Subtotal</b>				<b>2,669</b>	<b>2,683</b>	<b>2,377</b>	<b>2,073</b>	<b>3,065</b>	<b>2,758</b>	<b>3,371</b>	<b>2,758</b>	<b>3,371</b>	<b>2,758</b>	<b>3,371</b>	<b>8,274</b>	<b>10,113</b>	
7	QA, Job Observations, Field Rides, and Job Monitoring	Medium Pressure Company Crew Inspections	The FOS and Team Leads will complete inspections on company crew work. Supervisors will complete the FACT form to record their findings	B	-	-	-	-	58	52	64	52	64	52	64	156	192	Base Year
8	<b>QA, Job Observations, Field Rides, and Job Monitoring Subtotal</b>				<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>58</b>	<b>52</b>	<b>64</b>	<b>52</b>	<b>64</b>	<b>52</b>	<b>64</b>	<b>156</b>	<b>192</b>	
9	Safety, Industrial Hygiene, Wellness, and Emergency Services/Programs	Emergency Responder Website	Emergency Responder Website that external parties can access	P	-	-	-	-	-	-	-	-	-	2,031	2,483	2,031	2,483	Zero Based
10	<b>Safety, Industrial Hygiene, Wellness, and Emergency Services/Programs Subtotal</b>				<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,031</b>	<b>2,483</b>	<b>2,031</b>	<b>2,483</b>	
11	PPE and Safety Equipment	Confined space air monitoring system for field personnel	Replace 280 confined space monitors in 2018. Replace 380 personal monitors in 2018. 100 calibration gas cylinders purchased per year	P	-	-	-	-	-	-	-	900	1,100	-	-	900	1,100	Zero Based
12		Upgrade Nomex coveralls and fresh air equipment	Replace all current Nomex and fresh air equipment	P	-	-	-	-	-	1,364	1,667	-	-	-	-	1,364	1,667	Zero Based
13	<b>PPE and Safety Equipment Subtotal</b>				<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,364</b>	<b>1,667</b>	<b>900</b>	<b>1,100</b>	<b>-</b>	<b>-</b>	<b>2,264</b>	<b>2,767</b>	
14	Gas Facility and Pipeline Inspections	Pipeline Patrols, Bridge & Span Inspections, Odorization - Transmission <sup>1</sup>	Pipeline Patrols, Bridge & Span Inspections, Odorization - Transmission	B	-	-	-	-	-	-	-	-	-	-	-	-	-	
15	<b>Gas Facility and Pipeline Inspections Subtotal</b>				<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
16	<b>TOTAL</b>				<b>\$ 3,812</b>	<b>\$ 3,829</b>	<b>\$ 3,731</b>	<b>\$ 3,288</b>	<b>\$ 4,178</b>	<b>\$ 5,124</b>	<b>\$ 6,263</b>	<b>\$ 4,660</b>	<b>\$ 5,696</b>	<b>\$ 5,791</b>	<b>\$ 7,079</b>	<b>\$ 15,575</b>	<b>\$ 19,038</b>	

Notes:

- Baseline (B) and Proposed (P).
- Numbers in risk chapter tables may differ due to rounding.
- The purpose of Risk Assessment Mitigation Phase (RAMP) is not to request funding. Any funding requests will be made in the General Rate Case (GRC). The forecasts for mitigations are not for funding purposes, but are rather to provide a range for the future GRC filing. This range will be refined with supporting testimony in the GRC.

<sup>1</sup> Controls/Mitigations for which numbers in risk chapter tables may differ due to calculation errors.