CNS consolidated nuclear security, IIc PANTEX PLANT Y-12 NATIONAL SECURITY COMPLEX

OBJECTIVE: Analysis of Indirect Cost

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Business Need

Excerpts from (Direct and Indirect Control Account Analysis) presented by Robert Loop on June 7, 2022

- "Control Account Managers should be able to view the split between Direct and Indirect components of Cost Variance."
- "Indirect Cost Variances can have two sources:
 - 1. The multiplication of a Direct Cost/Hours overrun
 - 2. The performance of the Indirect pools/base allocated to control accounts"
- ← Efficiency / Usage Variance
- ← Rate / Price Variance
- "Indirect Pool Performance Driver explanations should be provided to the CAMs from Finance."

Options (slide 11)

"Key elements of all options. Direct price usage is available and understanding of direct and indirect variances at the control account level."

CNS Options to Achieve Indirect Analysis Objective

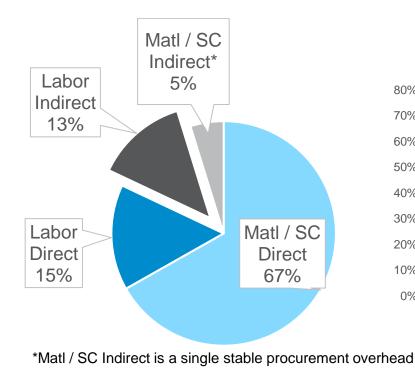
Option 1 – Segregate Indirect as EOC

- Advantages:
 - Indirect component of cost clearly identified at WP and CA level
- Disadvantages:
 - Additional analysis still required to identify the driver for changes to Indirect EOC. Changes in direct labor hours (usage) have the greatest impact on Indirect cost
 - Segregating Indirect as EOC impacts existing analysis tool (Empower)

Option 2 – Demonstrate Existing Rate and Usage Analysis Tools

- Advantages:
 - No special programming or changes needed
 - Empower provides built in analysis capability for Labor Rate / Usage components. Labor indirect cost is the only volatile component (~75% of Billed Indirect Cost)
- Disadvantages:
 - Indirect component of cost remains "baked in" on CPR Format 1

CNS – Typical Profile of Direct & Indirect Cost



80% 70% 5% 60% 50% 40% 67% 30% 13% 20% 10% 15% 0% Labor Matl / SC ■ Direct ■ Indirect LPF FY22 period 8 (excluding fee)

Indirects as Percent of Total Cost

>70% of Direct cost is Material / Subcontract (<u>stable</u> INDIRECT component)

- Significant Price/Usage deviation for DIRECT Material defined by CAM in VAR
- <30% of Direct cost is Direct Labor (more volatile INDIRECT component)
 - Empower identifies labor rate/usage variances
 - Accounting provides CA level feedback to explain accounting adjustments
 - CAMs explain the Rate/Efficiency components in the VAR

Empower – Rate / Usage Analysis

		· · · · · · · · · · · · · · · · · · ·							· · · · · · ·											
															Period	Period	Cum	Cum		
															Labor	Labor	Labor	Labor		
Dollars in Thousands (Sort Window export)					(port)										Efficiency	Rate	Efficiency	Rate		
															Variance	Variance	Variance	Variance		
WBS	ET	Bcws Cur	Bcwp Cur	Acwp Cur	Sv Cur	Cv Cur	BCWS	BCWP	ACWP	SV	CV	BAC	EAC	VAC	Eff VarCur	Rate VarCur	Eff Var	Rate Var		
LP.xx.xx.10.10	CA	43	72	29	29	44	7,977	8,015	4,802	38	3,212	8,519	5,307	3,212	43	1	2,432	683		
																44		3,116		
																		/		
Elements of Cos	st (T	Гhousa	nds)															570		
UNIT		BCWS _c	BCWP _c	ACWP _c	SV_c	CV_c	BCWS	BCWP	ACWP	SV	CV	BAC	EAC	VAC			F	4		
Hours (Ones)		211	352	144	141	209	35,970	36,153	25,011	183	11,142	38,747	27,606	11,142			Encore A	inalytics		
													/	/				6.500.023		
Material(NL)		0	0	0	0	0	123	123	0	0	123	123	0	123	About E	mpower		×		
Subcontract(NL)		0	0	0	0	0	0	0	51	0	-51	0	51	-51						
Labor(L)		43	72	29	29	44	7,854	7,892	4,777	38	3,116	8,396	5,281	3,115		Copyright © 2013-2021, Encore Analytics, LLC				
Indirect HistVar(L)		0	0	0	0	0	0	0	-25	0	25	0	-25	25						
EOC Total		43	72	29	29	44	7,977	8,015	4,802	38	<mark>3,212</mark>	8,519	5,307	3,212	Version	,				
Delta to Dollars		1	7			0			0	0	0	0	0	0	Updated	Updated 2022-05-24 19:33:36 UT				

Efficiency Variance captures impact of labor hour variance

- Straightforward analysis (Driver of underrun is fewer hours worked) Rate Variance captures impact of labor rate/hour or indirect changes
- Utilize dollar value of accounting provided "Rate Impact"
- NO Accounting adjustment cause is "Different resource pool used"

Recommendation

Utilize Existing Tools

- Segregating Indirects as EOC adds complexity without analytical benefit
- UPF already utilizes directed custom/complex "Project Specific Indirect Rates". Any change in handling "normal CNS Indirects" would further complicate UPF reporting.
- Existing analysis tool (Empower) relies upon fully burdened labor to generate the labor "rate" and "efficiency/usage" variances
 - Rate variances driven by accounting are provided at CA level when they occur
 - Rate variances driven by CAM decision on labor pool used is the only other major driver
- CNS Non-labor related Indirects are small and very stable
 - Infrequent accounting provided impacts (such as year end variance distributions)
- EVM System Description requirements for Variance Analysis are currently achieved with Empower and communication of any unique accounting adjustments

Improving Indirect Visibility

- CPR Format 1 can be changed to reflect the Indirect component of cost (not additive)
- Web EVM (Cost Processor) is capable to providing custom reporting of Indirects as needed for summary analysis

Questions?

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