

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
0461	H	3										X	X	S	(SRO) (MODIFIED) REPLACED WITH Q 467..
0452	H	2										X	X	S	(SRO) (NEW) CFR REFERENCE ADDED
0432	H	2										X	X	S	(SRO) (NEW) CFR REFERENCE ADDED
0454	H	3										X	X	S	(SRO) (NEW)
0455	F	2										X	X	S	(SRO) (NEW) CFR REFERENCE ADDED
0456	H	3										X	X	S	(SRO) (NEW) CFR REFERENCE ADDED
0342	F	3										X	X	S	(SRO)
0368	H	3										X	X	S	(SRO) CFR REFERENCE ADDED
0278	H	3										X	X	S	(SRO) CFR REFERENCE ADDED
0032	H	3										X	X	S	(SRO) (MODIFIED) Q CHANGED
0367	F	2										X	X	S	(SRO)
0062	H	4										X	X	S	(SRO) CFR REFERENCE ADDED
0182	H	3										X	X	S	(SRO) CFR REFERENCE ADDED
0347	H	2										X	X	S	(SRO) CFR REFERENCE ADDED
0169	H	3										X	X	S	(SRO) CFR REFERENCE ADDED
0458	F	2										X	X	S	(SRO)
0407	F	2										X	X	S	(SRO)
0457	H	2										X	X	S	(SRO)
0459	F	2										X	X	S	(SRO)
0331	H	4										X	X	S	(SRO)
0460	H	3										X	X	S	(SRO)
0411	H	2										X	X	S	(SRO)
0354	F	2										X	X	S	(SRO)
0117	F	3										X	X	S	(SRO)

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only		
0129	F	3										X	X	S	(SRO)
0194	H	3										X		S	(RO) (MODIFIED) CORRECTED ANSWER & NOTES TO AGREE.
0436	H	2										X		S	(RO) (MODIFIED)
0095	H	3										X		S	(BOTH) (MODIFIED)
0417	H	3										X		S	(BOTH) (NEW)
0344	H	2										X		S	(BOTH)
0229	H	3										X		S	(BOTH)
0174	F	3										X		S	(BOTH)
0414	F	3										X		S	(BOTH) (NEW)
0418	F	2										X		S	(BOTH)
0014	F	2										X		S	(BOTH)
0420	H	3										X		S	(BOTH)
0422	H	3										X		S	(BOTH) (MODIFIED)
0426	H	2										X		S	(BOTH) (NEW)
0423	H	3										X		S	(BOTH) (NEW)
0415	H	3										X		S	(BOTH) (NEW)
0427	H	3										X		S	(BOTH) (NEW)
0429	H	2										X		S	(BOTH)
0052	H	4										X		S	(BOTH) (MODIFIED)
0002	H	3										X		S	(BOTH) (MODIFIED)
0189	H	4										X		S	(BOTH) (MODIFIED)
0430	F	2										X		S	(BOTH)
0431	H	3										X		S	(BOTH) CHANGED QUESTION
0416	F	3										X		S	(BOTH) (NEW)
0063	H	3										X		S	(BOTH)
0435	H	3										X		S	(BOTH) (NEW)

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
0439	H	2										X		S	(BOTH) (NEW)
0197	H	3										X		S	(BOTH)
0441	F	2										X		S	(BOTH) (NEW)
0443	H	2										X		S	(BOTH) (NEW)
0447	F	3										X		S	(BOTH) (NEW)
0448	H	3										X		S	(BOTH) (NEW)
0151	H	3										X		S	(BOTH) (MODIFIED)
0463	H	3										X		S	(BOTH) (NEW)
0104	F	2										X		S	(BOTH)
0462	H	3										X		S	(BOTH) (NEW) CFR REFERENCE ADDED
0027	H	3										X		S	(RO)
0425	F	2										X		S	(RO)
0428	F	2										X		S	(RO)
0191	F	2										X		S	(RO)
0299	H	3										X		S	(RO)
0261	H	3										X		S	(RO)
0255	H	2										X		S	(RO)
0437	H	3										X		S	(RO)
0073	H	3										X		S	(RO)
0444	F	2										X		S	(RO)
0311	H	3										X		S	(RO)
0446	H	2										X		S	(RO)
0205	H	3										X		S	(RO)
0450	H	2										X		S	(RO) (NEW)
0046	H	3										X		S	(RO)
0170	H	3										X		S	(RO)

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
0389	F	2										X		S	(RO) CFR REFERENCE ADDED
0451	F	2										X		S	(RO) (NEW)
0245	F	2										X		S	(RO)
0232	H	2										X		S	(RO) CFR REFERENCE ADDED & QUESTION CLARIFIED
0233	H	2										X		S	(RO)
0126	H	3										X		S	(RO)
0161	H	2										X		S	(BOTH)
0419	H	3										X		S	(BOTH)
0020	H	4										X		S	(BOTH)
0015	H	2										X		S	(BOTH)
0421	H	3										X		S	(BOTH)
0285	H	2										X		S	(BOTH)
0363	H	3										X		S	(BOTH)
0372	H	4										X		S	(BOTH)
0337	H	3										X		S	(BOTH)
0164	H	2										X		S	(BOTH)
0035	H	2										X		S	(BOTH)
0184	H	3										X		S	(BOTH)
0364	H	2										X		S	(BOTH) CFR REFERENCE ADDED
0424	F	2										X		S	(BOTH) IMPORTANCE < 2.5. JUSTIFICATION ADDED TO OUTLINE.
0365	H	3										X		S	(BOTH)
0187	H	3										X		S	(BOTH)
0167	F	2										X		S	(BOTH)
0186	H	2										X		S	(BOTH) CFR REFERENCE ADDED
0137	F	2										X		S	(BOTH)
0264	F	2										X		S	(BOTH)

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
0464	H	2										X		S	(BOTH) MODIFIED Q
0222	H	3										X		S	(BOTH)
0434	H	3										X		S	(BOTH)
0379	H	2										X		S	(BOTH)
0440	F	2										X		S	(BOTH)
0085	F	2										X		S	(BOTH)
0442	H	3										X		S	(BOTH)
0077	H	3										X		S	(BOTH)
0200	H	3										X		S	(BOTH)
0445	F	2										X		S	(BOTH)
0140	H	3										X		S	(BOTH) REPLACED Q WITH Q468
0224	H	3										X		S	(BOTH)
0102	H	3										X		S	(BOTH) MODIFIED DISTRACTOR D
0449	H	3										X		S	(BOTH)
0210	F	2										X		S	(BOTH)
0108	H	3										X		S	(BOTH)
0244	F	2										X		S	(BOTH)
0113	H	4										X		S	(BOTH) CFR REFERENCE ADDED
0247	F	2										X		S	(BOTH)
0122	F	2										X		S	(BOTH) CFR REFERENCE ADDED
0121	F	2										X		S	(BOTH)
0234	H	3										X		S	(BOTH) CFR REFERENCE ADDED
0433	F	3										X		S	(RO) (N)

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws				4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A		
Instructions														
[Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]														
1.	Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.													
2.	Enter the level of difficulty (LOD) of each question using a 1 - 5 (easy - difficult) rating scale (questions in the 2 - 4 range are acceptable).													
3.	Check the appropriate box if a psychometric flaw is identified: <ul style="list-style-type: none"> · The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information). · The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc). · The answer choices are a collection of unrelated true/false statements. · More than one distractor is not credible. · One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem). 													
4.	Check the appropriate box if a job content error is identified: <ul style="list-style-type: none"> · The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content). · The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory). · The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons). · The question requires reverse logic or application compared to the job requirements. 													
5.	<u>Check questions that are sampled</u> for conformance with the approved K/A and those that are <u>designated SRO-only</u> (K/A and license level mismatches are unacceptable).													
6.	Based on the reviewer's judgment, is the question as written (U)nacceptable (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?													
7.	At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).													

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
0461	H	3		X		X						X	?	U	(SRO) (MODIFIED) DISTRACTORS B & D NOT CREDIBLE. DISTRACTOR A PROVIDES A CUE. CFR REFERENCE? WILL WORK ON DISTRACTORS OR REPLACE.
0452	H	2										X	?	E	(SRO) (NEW) CFR REFERENCE?
0432	H	2										X	?	E	(SRO) (NEW) CFR REFERENCE?
0454	H	3										X	X	S	(SRO) (NEW)
0455	F	2										X	?	E	(SRO) (NEW) CFR REFERENCE?
0456	H	3										X	?	E	(SRO) (NEW) CFR REFERENCE?
0342	F	3										X	X	S	(SRO)
0368	H	3										X	?	E	(SRO) CFR REFERENCE?
0278	H	3										X	?	E	(SRO) CFR REFERENCE?
0032	H	3										X	?	U	(SRO) (MODIFIED) NOT SRO ONLY. WILL REPLACE.
0367	F	2										X	X	S	(SRO)
0062	H	4										X	?	E	(SRO) CFR REFERENCE?
0182	H	3										X	?	E	(SRO) CFR REFERENCE?
0347	H	2										X	?	E	(SRO) CFR REFERENCE?
0169	H	3										X	X	S	(SRO) CFR REFERENCE?
0458	F	2										X	X	S	(SRO)
0407	F	2										X	X	S	(SRO)
0457	H	2										X	X	S	(SRO)
0459	F	2										X	X	S	(SRO)
0331	H	4										X	X	S	(SRO)
0460	H	3										X	X	S	(SRO)
0411	H	2										X	X	S	(SRO)
0354	F	2										X	X	S	(SRO)

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
0117	F	3										X	X	S	(SRO)
0129	F	3										X	X	S	(SRO)
0194	H	3										X		E	(RO) (MODIFIED) ANSWER & NOTES DO NOT AGREE. WILL CHANGE TO AGREE.
0436	H	2								X		X		S	(RO) (MODIFIED)
0095	H	3										X		S	(BOTH) (MODIFIED)
0417	H	3										X		S	(BOTH) (NEW)
0344	H	2										X		S	(BOTH)
0229	H	3										X		S	(BOTH)
0174	F	3										X		S	(BOTH)
0414	F	3										X		S	(BOTH) (NEW)
0418	F	2										X		S	(BOTH)
0014	F	2										X		S	(BOTH)
0420	H	3										X		S	(BOTH)
0422	H	3										X		S	(BOTH) (MODIFIED)
0426	H	2										X		S	(BOTH) (NEW)
0423	H	3										X		S	(BOTH) (NEW)
0415	H	3										X		S	(BOTH) (NEW)
0427	H	3										X		S	(BOTH) (NEW)
0429	H	2										X		S	(BOTH)
0052	H	4										X		S	(BOTH) (MODIFIED)
0002	H	3										X		S	(BOTH) (MODIFIED)
0189	H	4										X		S	(BOTH) (MODIFIED)
0430	F	2										X		S	(BOTH)
0431	H	3										NO		U	(BOTH) QUESTION DOES NOT MATCH K/A. WILL REVIEW AND/OR CHANGE.
0416	F	3										X		S	(BOTH) (NEW)

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
0063	H	3										X		S	(BOTH)
0435	H	3										X		S	(BOTH) (NEW)
0439	H	2										X		S	(BOTH) (NEW)
0197	H	3										X		S	(BOTH)
0441	F	2										X		S	(BOTH) (NEW)
0443	H	2										X		S	(BOTH) (NEW)
0447	F	3										X		S	(BOTH) (NEW)
0448	H	3										X		S	(BOTH) (NEW)
0151	H	3										X		S	(BOTH) (MODIFIED)
0463	H	3										X		S	(BOTH) (NEW)
0104	F	2										X		S	(BOTH)
0462	H	3										X		S	(BOTH) (NEW) CFR REFERENCE
0027	H	3										X		S	(RO)
0425	F	2										X		S	(RO)
0428	F	2										X		S	(RO)
0191	F	2										X		S	(RO)
0299	H	3										X		S	(RO)
0261	H	3										X		S	(RO)
0255	H	2										X		S	(RO)
0437	H	3										X		S	(RO)
0073	H	3										X		S	(RO)
0444	F	2										X		S	(RO)
0311	H	3										X		S	(RO)
0446	H	2										X		S	(RO)
0205	H	3										X		S	(RO)
0450	H	2										X		S	(RO) (NEW)

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only		
0046	H	3										X		S	(RO)
0170	H	3										X		S	(RO)
0389	F	2										X		S	(RO) CFR REFERENCE?
0451	F	2										X		S	(RO) (NEW)
0245	F	2										X		S	(RO)
0232	H	2	X									X		E	(RO) CFR REFERENCE? QUESTION NOT CLEAR - IS STEM ANSWER BEFORE OR AFTER SHIFT RELIEF? WILL CLARIFY.
0233	H	2										X		S	(RO)
0126	H	3										X		S	(RO)
0161	H	2										X		S	(BOTH)
0419	H	3										X		S	(BOTH)
0020	H	4										X		S	(BOTH)
0015	H	2										X		S	(BOTH)
0421	H	3										X		S	(BOTH)
0285	H	2										X		S	(BOTH)
0363	H	3										X		S	(BOTH)
0372	H	4										X		S	(BOTH)
0337	H	3										X		S	(BOTH)
0164	H	2										X		S	(BOTH)
0035	H	2										X		S	(BOTH)
0184	H	3										X		S	(BOTH)
0364	H	2										X		S	(BOTH) CFR REFERENCE?
0424	F	2										X		E	(BOTH) IMPORTANCE < 2.5. ADD JUSTIFICATION TO OUTLINE. WILL ADD.
0365	H	3										X		S	(BOTH)
0187	H	3										X		S	(BOTH)
0167	F	2										X		S	(BOTH)

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
0186	H	2										X		S	(BOTH) CFR REFERENCE?
0137	F	2										X		S	(BOTH)
0264	F	2										X		S	(BOTH)
0464	H	2				X						X		E	(BOTH) DISTRACTOR D NOT PLAUSIBLE. WILL MODIFY.
0222	H	3										X		S	(BOTH)
0434	H	3										X		S	(BOTH)
0379	H	2										X		S	(BOTH)
0440	F	2										X		S	(BOTH)
0085	F	2										X		S	(BOTH)
0442	H	3										X		S	(BOTH)
0077	H	3										X		S	(BOTH)
0200	H	3										X		S	(BOTH)
0445	F	2										X		S	(BOTH)
0140	H	3		X		X						X		U	(BOTH) DISTRACTORS B, C, D NOT CREDIBLE. STEM PROVIDES A ANSWER CUE. WILL REVIEW.
0224	H	3										X		S	(BOTH)
0102	H	3										X		E	(BOTH) DISTRACTOR D SHOULD BE REWORDED TO BE CONSISTENT WITH THE FORMAT OF THE OTHER DISTRACTORS. WILL REVIEW.
0449	H	3										X		S	(BOTH)
0210	F	2										X		S	(BOTH)
0108	H	3										X		S	(BOTH)
0244	F	2										X		S	(BOTH)
0113	H	4										X		S	(BOTH) CFR REFERENCE
0247	F	2										X		S	(BOTH)
0122	F	2										X		S	(BOTH) CFR REFERENCE
0121	F	2										X		S	(BOTH)
0234	H	3										X		S	(BOTH) CFR REFERENCE

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
0433	F	3											X		S	(RO) (N)
<p style="text-align: center;">Instructions</p> <p style="text-align: center;">[Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]</p> <ol style="list-style-type: none"> Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level. Enter the level of difficulty (LOD) of each question using a 1 - 5 (easy - difficult) rating scale (questions in the 2 - 4 range are acceptable). Check the appropriate box if a psychometric flaw is identified: <ul style="list-style-type: none"> The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information). The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc). The answer choices are a collection of unrelated true/false statements. More than one distractor is not credible. One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem). Check the appropriate box if a job content error is identified: <ul style="list-style-type: none"> The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content). The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory). The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons). The question requires reverse logic or application compared to the job requirements. <u>Check questions that are sampled</u> for conformance with the approved K/A and those that are <u>designated SRO-only</u> (K/A and license level mismatches are unacceptable). Based on the reviewer's judgment, is the question as written (U)nacceptable (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory? At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met). 																

[illegible]