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#### RCRA REVISION CHECKLIST 169

Petroleum Refining Process Wastes
63 <u>FR</u> 42110-42189
August 6, 1998
(RCRA Cluster IX, HSWA/Non-HSWA provisions)

Notes: 1) The revisions to 40 CFR 261.32, Part 261 Appendix VII, 268.35 and 268.40 are promulgated pursuant to HSWA. These regulations become effective on the Federal effective date in all States. The revision to 40 CFR 266.100 is promulgated pursuant to HSWA, but it is optional for adoption. The revisions to 40 CFR Part 261.3, 261.4, and 261.6 are promulgated relative to non-HSWA authority. The non-HSWA revisions related to the exclusions from the definition of solid waste of certain oil-bearing hazardous secondary material from petroleum refining and certain recovered oils from associated petrochemicals are optional. The addition of 40 CFR 261.4(a)(19) is a clarifying change and States are not required to make it because they do not need further authorization to interpret their regulations in accordance with this clarification. Those provisions designated as HSWA are identified by a "Ë" (diamond symbol) in this checklist.

2) A technical correction was made to this rule at 64 <u>FR</u> 36365 (June 8, 2000; Revision Checklist 187). States are encouraged to adopt the technical correction at the same time that the Revision Checklist 169 provisions are adopted.

					STATE A	NALOG I	S:	
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE	
	PART 261 -	IDENTIFICATION AND	LISTING OF HAZARI	OOUS	WAST	Έ		
	SUBPART A - GENERAL							
	DEFINITION OF HAZAE	RDOUS WASTE						
†	insert ", provided that the wastesseparation" after "§ 261.32"; insert "crude oil storage tank sediment (EPA Hazardous Waste No. K172)" after "(EPA Hazardous Waste No. K050)"	261.3(a)(2)(iv)(C)						
† <b>,</b> 1	replace "\\$ 261.6(a)(3)(iv) through (vi) "with "\\$ 261.6(a)(3)(iii) and (iv)"	261.3(c)(2)(ii)(B)						

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				STATE A	NALOG I	S:
FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
† add new subparagraph; catalyst inert support media separated from wastes listed in § 261.32 – Spent hydrotreating catalyst and spent hydrorefining catalyst	261.3(c)(2)(ii)(E)					

**EXCLUSIONS** 

					STATE A	NALOG I	S:
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
1,4	completely revise 261.4(a)(12) as 261.4(a)(12)(i)&(ii); oilbearing hazardous secondary materials generated at petroleum refinery and inserted into the refining process unless						
	the material is placed on land or speculatively accumulated before recycled; non- characteristic materials						
	inserted into thermal cracking units; oil-bearing hazardous secondary materials inserted into same refinery where						
	generated, or sent directly to another refinery; oil- bearing hazardous secondary materials generated elsewhere in						
	petroleum industry are not excluded; residuals generated from materials excluded under						
	261.4(a)(12)(i) that would have otherwise met listing under 261 subpart D, are designated as F037 listed wastes when disposed of or intended for disposal	261.4(a)(12)(i)					

					STATE A	NALOG I	S:
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
†,2	recovered oil recycled in same manner and conditions as in 261.4(a)(12)(i); recovered oil is oil reclaimed from secondary materials generated from normal petroleum industry practices; recovered oil does not include oilbearing hazardous wastes listed in 261 subpart D, however, oil recovered from such wastes may be considered recovered oil; recovered oil does not include used oil as defined in 279.1	261.4(a)(12)(ii)					
†	add new paragraph; petrochemical recovered oil from associated organic chemical manufacturing facility, where oil is inserted into refining process with normal process streams provided:	261.4(a)(18)					
†	oil is hazardous only because it exhibits characteristic of ignitability and/or toxicity for benzene; and	261.4(a)(18)(i)					

					STATE A	NALOG I	S:
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
†	oil generated is not placed on land or speculatively accumulated before recycled; definitions of "associated organic chemical manufacturing facility" and "petrochemical recovered oil"	261.4(a)(18)(ii)					
†	add new paragraph; spent caustic solutions from petroleum refining liquid treating processes used as feedstock to produce cresylic or naphthenic acid unless material is placed on land or accumulated speculatively as defined in 261.1(c)	261.4(a)(19)					
	REQUIREMENTS FOR RI	ECYCLABLE MATERIAL	S				
†	at end of paragraph, replace "; and" with a period	261.6(a)(3)(iv)(C)					
†,2	remove	261.6(a)(3)(v)					
		SUBPART D – LISTS OF	HAZARDOUS WASTI	ES			

HAZARDOUS WASTES FROM NON-SPECIFIC SOURCES

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				STATE A	NALOG I	S:
FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
†,3 revise entry for F037; remove colon after "those generated in"; replace period with a comma after "receiving dry weather flow"; use lower case with "Sludge"; add new sentence to end of description regarding the inclusion of excluded residuals generated from processing or recycling oilbearing hazardous secondary materials if to						
be disposed	261.31(a)					

					STATE A	NALOG I	S:		
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE		
	HAZARDOUS WASTES I	FROM SPECIFIC SOURCE	S	-	-	-			
Ë	add following waste streams to subgroup "Petroleum refining", in alphanumeric order	261.32							
	Industry and EPA hazardous waste No.	Hazardous	Waste				Hazard code		
	Petroleum refining:								
	K169								
	APPENDIX VII TO PART 261								
	BASIS FOR LISTING HA	ZARDOUS WASTE							
Ë	add to appendix in alphanumeric order, the following waste streams to subgroup "Petroleum refining"	261 Appendix VII							
	EPA hazardous waste No.	Hazardous constituent	s for which listed						
	benzo(k)fluoranthene, 3- K171 Benzene, ar K172 Benzene, ar	senic.	12-dimethylbenz(a)anthrac	ene.					

PART 266 – STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTES AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

SUBPART H - HAZARDOUS WASTE BURNED IN BOILERS AND INDUSTRIAL FURNACES

				STATE ANALOG IS:			ç.
	FEDERAL REQUIREMENTS  APPLICABILITY	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
Ë,†,1, 2	replace "261.6(a)(3)(iv)	266.100(b)(3)					
		PART 268 – LAND DISP	POSAL RESTRICTION	S			
	S	UBPART C – PROHIBITIC	ONS ON LAND DISPO	SAL			
	WASTE SPECIFIC PROH	IBITIONS-PETROLEUM R	REFINING WASTES	1			
Ë,4	add new paragraph; effective February 8, 1999, wastes K169-K172, soils and debris contaminated with these wastes, radioactive wastes mixed with these wastes, and soils and debris contaminated with radioactive wastes mixed with these wastes are prohibited from land disposal	268.35(a)					
Ë	add new paragraph; requirements of 268.35(a) do not apply if:	268.35(b) intro					
Ë	wastes meet treatment standards specified in 268 subpart D;	268.35(b)(1)					
Ë	exemption from a prohibition pursuant to petition granted under 268.6, with respect to wastes and units covered by the petition;	268.35(b)(2)					

					STATE A	NALOG I	S:
Ë	rederal requirements wastes meet treatment standards established pursuant to petition granted under 268.44;	FEDERAL RCRA CITATION  268.35(b)(3)	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
Ë	hazardous debris meeting treatment standards in 268.40 or alternative treatment standards in 268.45; or	268.35(b)(4)					
Ë	extension to effective date of prohibition granted pursuant to 268.5, with respect to wastes covered by extension	268.35(b)(5)					
Ë	add new paragraph; to determine if hazardous wastes identified in 268.35 exceeds 268.40 treatment standards, initial generator must test waste, or use knowledge of waste; if waste contains constituents in excess of UTS levels of 268.48, waste is prohibited from land disposal, and all requirements of part 268 are applicable, except as otherwise specified	268.35(c)					
		SUBPART D – TREAT	MENT STANDARDS				
	APPLICABILITY OF TRE	EATMENT STANDARDS					
Ë,5	add in alphanumeric order new entries for K169, K170, K171, and K172 as shown at 63 <u>FR</u> 42187	268.40/Table					

The internal reference to "\$261.6(a)(3)(iv) through (vi)", as affected by Revision Checklist 135, was incorrect in the July 1, 1997, CFR. The reference should have been "\$261.6(a)(3)(<u>iii</u>) through (<u>v</u>)" to correctly correspond to the deletion of subparagraphs in 40 CFR 261.6(a)(3) by Revision Checklists 112, 135, and 142B. Not all of these checklists made the corresponding changes to the internal references at 40 CFR 261.3(c)(2)(ii)(B) or 266.100(b)(3); therefore, the internal reference has remained incorrect in the CFR since July 1, 1993. Revision Checklist 169 subsequently corrects the internal references at both provisions to also reflect the removal of 40 CFR 261.6(a)(3)(v).

- The optional revision of the exclusion at 40 CFR 261.4(a)(12)(i)&(ii) replaces the provision at 40 CFR 261.6(a)(3)(v) causing this later provision to be removed; therefore, these changes should be adopted together. States should be aware that adoption of the removal of 40 CFR 261.6(a)(3)(v) without the adoption of the revisions to 40 CFR 261.4(a)(12)(i)&(ii) would make the State potentially broader-in-scope than the Federal requirements. The correction of the internal reference to "261.6(a)(3)(iv) through (vi)" at 40 CFR 261.3(c)(2)(ii)(B) is also optional but should be made if the revisions to 40 CFR 261.4(a)(12)(i)&(ii) are adopted. Although the revision of the internal reference at 40 CFR 266.100(b)(3) is made pursuant to HSWA authority, it is also optional since the revision should be made only if the revisions to 40 CFR 261.4(a)(12)(i)&(ii) are adopted.
- This change is conditionally optional. If a State chooses to make the optional changes at 40 CFR 261.4(a)(12), it needs to make this change as well.
- The 1997 40 CFR reprints 40 CFR 268.35 (which was removed by the rule addressed by Revision Checklist 157), and includes a note that the section has been removed effective August 11, 1997 (62 FR 26022, 5/12/97). Since it was promulgated after the effective date of the removal, Revision Checklist 169 adds a new 40 CFR 268.35.
- Note that the August 6, 1998 rule (Revision Checklist 169) republished the appropriate footnotes to the Table of Treatment Standards at 40 CFR 268.40 without change.

#### RCRA REVISION CHECKLIST 169

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August 6, 1998
(RCRA Cluster IX, HSWA/Non-HSWA provisions)

Notes: 1) The revisions to 40 CFR 261.32, Part 261 Appendix VII, 268.35 and 268.40 are promulgated pursuant to HSWA. These regulations become effective on the Federal effective date in all States. The revision to 40 CFR 266.100 is promulgated pursuant to HSWA, but it is optional for adoption. The revisions to 40 CFR Part 261.3, 261.4, and 261.6 are promulgated relative to non-HSWA authority. The non-HSWA revisions related to the exclusions from the definition of solid waste of certain oil-bearing hazardous secondary material from petroleum refining and certain recovered oils from associated petrochemicals are optional. The addition of 40 CFR 261.4(a)(19) is a clarifying change and States are not required to make it because they do not need further authorization to interpret their regulations in accordance with this clarification. Those provisions designated as HSWA are identified by a "Ë" (diamond symbol) in this checklist.

2) A technical correction was made to this rule at 64 <u>FR</u> 36365 (June 8, 2000; Revision Checklist 187). States are encouraged to adopt the technical correction at the same time that the Revision Checklist 169 provisions are adopted.

					STATE A	NALOG I	S:	
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE	
	PART 261 -	IDENTIFICATION AND	LISTING OF HAZARI	OOUS	WAST	Έ		
	SUBPART A - GENERAL							
	DEFINITION OF HAZAE	RDOUS WASTE						
†	insert ", provided that the wastesseparation" after "§ 261.32"; insert "crude oil storage tank sediment (EPA Hazardous Waste No. K172)" after "(EPA Hazardous Waste No. K050)"	261.3(a)(2)(iv)(C)						
† <b>,</b> 1	replace "\\$ 261.6(a)(3)(iv) through (vi) "with "\\$ 261.6(a)(3)(iii) and (iv)"	261.3(c)(2)(ii)(B)						

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				STATE A	NALOG I	S:
FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
† add new subparagraph; catalyst inert support media separated from wastes listed in § 261.32 – Spent hydrotreating catalyst and spent hydrorefining catalyst	261.3(c)(2)(ii)(E)					

**EXCLUSIONS** 

			STATE ANALOG IS:			S:
FEDERAL REQUIREMENTS	S FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
†,2 completely revise						
261.4(a)(12) as						
261.4(a)(12)(i)&(ii); oilbearing hazardous						
secondary materials						
generated at petroleum						
refinery and inserted into						
the refining process unle						
the material is placed on						
land or speculatively						
accumulated before						
recycled; non-						
characteristic materials						
inserted into thermal						
cracking units; oil-bearir	ng					
hazardous secondary						
materials inserted into						
same refinery where						
generated, or sent direct	ly					
to another refinery; oil-						
bearing hazardous						
secondary materials						
generated elsewhere in						
petroleum industry are n	not					
excluded; residuals						
generated from material	S					
excluded under						
261.4(a)(12)(i) that wou						
have otherwise met listin	~					
under 261 subpart D, ar						
designated as F037 liste						
wastes when disposed o						
or intended for disposal	261.4(a)(12)(i)					ĺ

				STATE ANALOG IS:			S:
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
†,2	recovered oil recycled in same manner and conditions as in 261.4(a)(12)(i); recovered oil is oil reclaimed from secondary materials generated from normal petroleum industry practices; recovered oil does not include oilbearing hazardous wastes listed in 261 subpart D, however, oil recovered from such wastes may be considered recovered oil; recovered oil does not include used oil as defined in 279.1	261.4(a)(12)(ii)					
†	add new paragraph; petrochemical recovered oil from associated organic chemical manufacturing facility, where oil is inserted into refining process with normal process streams provided:	261.4(a)(18)					
†	oil is hazardous only because it exhibits characteristic of ignitability and/or toxicity for benzene; and	261.4(a)(18)(i)					

				STATE ANALOG IS:			S:
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
†	oil generated is not placed on land or speculatively accumulated before recycled; definitions of "associated organic chemical manufacturing facility" and "petrochemical recovered oil"	261.4(a)(18)(ii)					
†	add new paragraph; spent caustic solutions from petroleum refining liquid treating processes used as feedstock to produce cresylic or naphthenic acid unless material is placed on land or accumulated speculatively as defined in 261.1(c)	261.4(a)(19)					
	REQUIREMENTS FOR RI	ECYCLABLE MATERIAL	S				
†	at end of paragraph, replace "; and" with a period	261.6(a)(3)(iv)(C)					
†,2	remove	261.6(a)(3)(v)					
		SUBPART D – LISTS OF	HAZARDOUS WASTI	ES			

HAZARDOUS WASTES FROM NON-SPECIFIC SOURCES

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			STATE ANALOG IS:		S:	
FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
†,3 revise entry for F037; remove colon after "those generated in"; replace period with a comma after "receiving dry weather flow"; use lower case with "Sludge"; add new sentence to end of description regarding the inclusion of excluded residuals generated from processing or recycling oilbearing hazardous secondary materials if to						
be disposed	261.31(a)					

				STATE ANALOG		NALOG I	G IS:	
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE	
	HAZARDOUS WASTES I	FROM SPECIFIC SOURCE	S	-	-	-		
Ë	add following waste streams to subgroup "Petroleum refining", in alphanumeric order	261.32						
	Industry and EPA hazardous waste No.	Hazardous	Waste				Hazard code	
	Petroleum refining:							
	K169							
		APPENDIX VII	TO PART 261					
	BASIS FOR LISTING HA	ZARDOUS WASTE						
Ë	add to appendix in alphanumeric order, the following waste streams to subgroup "Petroleum refining"	261 Appendix VII						
	EPA hazardous waste No.	Hazardous constituent	s for which listed					
	K169							

PART 266 – STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTES AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

SUBPART H - HAZARDOUS WASTE BURNED IN BOILERS AND INDUSTRIAL FURNACES

				STATE ANALOG IS:			ç.
	FEDERAL REQUIREMENTS  APPLICABILITY	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
Ë,†,1, 2	replace "261.6(a)(3)(iv)	266.100(b)(3)					
		PART 268 – LAND DISP	POSAL RESTRICTION	S			
	S	UBPART C – PROHIBITIC	ONS ON LAND DISPO	SAL			
	WASTE SPECIFIC PROH	IBITIONS-PETROLEUM R	REFINING WASTES	1			
Ë,4	add new paragraph; effective February 8, 1999, wastes K169-K172, soils and debris contaminated with these wastes, radioactive wastes mixed with these wastes, and soils and debris contaminated with radioactive wastes mixed with these wastes are prohibited from land disposal	268.35(a)					
Ë	add new paragraph; requirements of 268.35(a) do not apply if:	268.35(b) intro					
Ë	wastes meet treatment standards specified in 268 subpart D;	268.35(b)(1)					
Ë	exemption from a prohibition pursuant to petition granted under 268.6, with respect to wastes and units covered by the petition;	268.35(b)(2)					

				STATE ANALOG IS:			S:
Ë	rederal requirements wastes meet treatment standards established pursuant to petition granted under 268.44;	FEDERAL RCRA CITATION  268.35(b)(3)	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
Ë	hazardous debris meeting treatment standards in 268.40 or alternative treatment standards in 268.45; or	268.35(b)(4)					
Ë	extension to effective date of prohibition granted pursuant to 268.5, with respect to wastes covered by extension	268.35(b)(5)					
Ë	add new paragraph; to determine if hazardous wastes identified in 268.35 exceeds 268.40 treatment standards, initial generator must test waste, or use knowledge of waste; if waste contains constituents in excess of UTS levels of 268.48, waste is prohibited from land disposal, and all requirements of part 268 are applicable, except as otherwise specified	268.35(c)					
		SUBPART D – TREAT	MENT STANDARDS				
	APPLICABILITY OF TRE	EATMENT STANDARDS					
Ë,5	add in alphanumeric order new entries for K169, K170, K171, and K172 as shown at 63 <u>FR</u> 42187	268.40/Table					

The internal reference to "\$261.6(a)(3)(iv) through (vi)", as affected by Revision Checklist 135, was incorrect in the July 1, 1997, CFR. The reference should have been "\$261.6(a)(3)(<u>iii</u>) through (<u>v</u>)" to correctly correspond to the deletion of subparagraphs in 40 CFR 261.6(a)(3) by Revision Checklists 112, 135, and 142B. Not all of these checklists made the corresponding changes to the internal references at 40 CFR 261.3(c)(2)(ii)(B) or 266.100(b)(3); therefore, the internal reference has remained incorrect in the CFR since July 1, 1993. Revision Checklist 169 subsequently corrects the internal references at both provisions to also reflect the removal of 40 CFR 261.6(a)(3)(v).

- The optional revision of the exclusion at 40 CFR 261.4(a)(12)(i)&(ii) replaces the provision at 40 CFR 261.6(a)(3)(v) causing this later provision to be removed; therefore, these changes should be adopted together. States should be aware that adoption of the removal of 40 CFR 261.6(a)(3)(v) without the adoption of the revisions to 40 CFR 261.4(a)(12)(i)&(ii) would make the State potentially broader-in-scope than the Federal requirements. The correction of the internal reference to "261.6(a)(3)(iv) through (vi)" at 40 CFR 261.3(c)(2)(ii)(B) is also optional but should be made if the revisions to 40 CFR 261.4(a)(12)(i)&(ii) are adopted. Although the revision of the internal reference at 40 CFR 266.100(b)(3) is made pursuant to HSWA authority, it is also optional since the revision should be made only if the revisions to 40 CFR 261.4(a)(12)(i)&(ii) are adopted.
- This change is conditionally optional. If a State chooses to make the optional changes at 40 CFR 261.4(a)(12), it needs to make this change as well.
- The 1997 40 CFR reprints 40 CFR 268.35 (which was removed by the rule addressed by Revision Checklist 157), and includes a note that the section has been removed effective August 11, 1997 (62 FR 26022, 5/12/97). Since it was promulgated after the effective date of the removal, Revision Checklist 169 adds a new 40 CFR 268.35.
- Note that the August 6, 1998 rule (Revision Checklist 169) republished the appropriate footnotes to the Table of Treatment Standards at 40 CFR 268.40 without change.