FEDERAL REQUIREMENT	FEDERAL CITATION	TRIBAL CITATION *Document title; page #; and § or ¶*	Tribal Citation Language	EPA-HQ Review Comments
SUBPART B - Maximum Contaminant Levels: §141.25 Analytical Methods for Radioactivity				
Analysis for the following contaminants shall be conducted to determine **§141.66** (radioactivity) in accordance with the methods in the following table, or their equivalent determined by EPA in accordance with **§141.27**.	§141.25 (a)	§411(A)	Sampling and analyses for the following contaminants shall be conducted to determine compliance with **§209** (radioactivity) in accordance with the methods found in Appendix A. With the written permission of the Director, concurred in by the Administrator of the EPA, or their equivalent determined by EPA an alternate analytical technique may be employed in accordance with **Appendix A § 401-A**.	See crosswalk section below for §209 & §141.66. Appendix A § 401-A is equivalent to §141.27 - see row below in Italics. Appendix A § 405-A (A) includes table in 141.25(a).
§141.27: (a) With the written permission of the State, concurred in by the Administrator of the U.S. EPA, an alternate analytical technique may be employed. An alternate technique shall be accepted only if it is substantially equivalent to the prescribed test in both precision and accuracy as it relates to the determination of compliance with any MCL. The use of the alternate analytical technique shall not decrease the frequency of monitoring required by this part.			***401-A ALTERNATIVE ANALYTICAL TECHNIQUES:*** *With written permission of the Director, concurred in by the Administrator of the EPA, an alternate analytical technique may be employed. An alternate technique shall be accepted if it is substantially equivalent to the prescribed test in both precision and accuracy as it relates to the determination of compliance with any MCL. The use of the alternate analytical technique shall not decrease the frequency of sampling required by these regulations.*	
When the identification and measurement of radionuclides other than those listed in paragraph (a) of this section is required, the following references are to be used, except in cases where alternative methods have been approved in accordance with § 141.27.	§141.25 (b)	§405-A (B)	B. When the identification and measurement of radionuclides other than those listed in subsection (A) of this section is required, the following references are to be used, except in cases where alternative methods have been approved in accordance with § 415.	
For the purpose of monitoring radioactivity concentrations in drinking water, the required sensitivity of the radioanalysis is defined in terms of a detection limit. The detection limit shall be that concentration which can be counted with a precision of plus or minus 100 percent at the 95 percent confidence level (1.96σ where σ is the standard deviation of the net counting rate of the sample).	§141.25 (c)	§405-A (C)	For the purpose of sampling radioactivity concentrations in drinking water, the required sensitivity of the radioanalysis is defined in terms of a detection limit. The detection limit shall be that concentration which can be counted with a precision of ± 100% at the 95% confidence level (1.96 sigma, where sigma is the standard deviation of the net counting rate of the sample).	
To determine compliance with §141.66 (b)(c) and (e) the detection limit shall not exceed the concentrations in Table B.	§141.25 (c)(1)	§411 (B)(1)	To determine compliance with Table 200.10, (#'s 1, 2 and 4) the detection limit shall not exceed the concentrations in Table 400.4.	
Detection Limits for Gross alpha particle activity, Radium 226, Radium 228 and Uranium Contaminant/Detection Limit Gross alpha particle activity/3 pCi/L Radium 226/1 pCi/L Radium 228/1 pCi/L Uranium/Reserved	§141.25(c)(1) Table B	§411 (B)(1) Table 400.4	Table 400.4: Detection Limits for Gross alpha particle activity, Radium 226, Radium 228 and Uranium Contaminant/Detection Limit Gross alpha particle activity/3 pCi/L Radium 226/1 pCi/L Radium 228/1 pCi/L Uranium/1 µg/L	
To determine compliance with §141.66(d) the detection limits shall not exceed the concentrations listed in Table C.	§141.25(c)(2)	§411 (B)(2) Table 400.5	To determine compliance with § 209 (A)(1) (#3 - Beta particle and photon radioactivity), the detection limits shall not exceed the concentrations listed in Table 400.5.	
Table C-Detection Limits for Man-Made Beta Particle and Photon Emitters (Note: name revised).	§141.25(c)(2) Table C	§411 (B)(2) Table 400.5		
Radionuclide/Detection limit Tritium/1,000 pCi/1. Strontium-89/10 pCi/1. Strontium-90/2 pCi/1. Iodine-131/1 pCi/1. Cesium-134/10 pCi/1. Gross beta/4 pCi/1. Other radionuclides/ 1/10 of the applicable limit.	§141.25(c)(2) Table C	§411 (B)(2) Table 400.5	Radionuclide/Detection limit Tritium/1,000 pCi/1. Strontium-89/10 pCi/1. Strontium-90/2 pCi/1. Iodine-131/1 pCi/1. Cesium-134/10 pCi/1. Gross beta/4 pCi/1. Other radionuclides/ 1/10 of the applicable limit.	
To judge compliance with the maximum contaminant levels listed in §141.66, averages of data shall be used and shall be rounded to the same number of significant figures as the maximum contaminant level for the substance in question.	§141.25(d)	§411 (D)(2)	To judge compliance with the MCLs listed in § 209, averages of data shall be used and shall be rounded to the same number of significant figures as the MCL for the substance in question.	
The State has the authority to determine compliance or initiate enforcement action based upon analytical results or other information compiled by their sanctioned representatives and agencies.	§141.25(e)	§2582. General Enforcement Authority		
SUBPART C - Monitoring and Analytical Requirements: §141.26 Monitoring Frequency and Compliance Requirements for Radionuclides in Community Water Systems.				
Monitoring and compliance requirements for gross alpha particle activity, radium-26, radium-228 and uranium.	§141.26 (a)	§411 (A)	Sampling and analyses for the following contaminants shall be conducted to determine compliance with **§209** (radioactivity) in accordance with the methods found in Appendix A. With the written permission of the Director, concurred in by the Administrator of the EPA, or their equivalent determined by EPA an alternate analytical technique may be employed in accordance with **Appendix A § 401-A**.	See crosswalk section below for §209 & §141.66. Appendix A § 401-A is equivalent to §141.27 - see row below in Italics. Appendix A § 405-A (A) includes table in 141.25(a).
Community water systems (CWSs) must conduct initial monitoring to determine compliance with **§141.66(b), (c) and (e)** by December 31, 2007. For the purposes of monitoring for gross alpha particle activity, radium-226, radium-228, uranium and beta particle and photon radioactivity in drinking water, "detection limit" is defined as in **§141.25(c).**	§141.26(a)(1)	§411 (A)(1)	Community water systems (CWSs) must conduct initial monitoring to determine compliance with **§ 209(A)** by December 31, 2007. For the purposes of monitoring for gross alpha particle activity, radium-226, radium-228, uranium, and beta particle and photon radioactivity in drinking water, "detection limit" is defined as in **Appendix A § 405-A (C).**	See crosswalk below comparing §209(A) w/ 141.66(b), (c), and (e)**.** Appendix A § 405-A (C) is equivalent to 141.25(c) definition of "detection limit".
§141.25(c) For the purpose of ***monitoring*** *radioactivity concentrations in drinking water, the required sensitivity of the radioanalysis is defined in terms of a detection limit. The detection limit shall be that concentration which can be counted with a precision of plus or minus 100 percent at the 95 percent confidence level (1.96σ where σ is the standard deviation of the net counting rate of the sample).*			*405-A (C). For the purpose of* ***sampling*** *radioactivity concentrations in drinking water, the required sensitivity of the radioanalysis is defined in terms of a detection limit. The detection limit shall be that concentration which can be counted with a precision of ± 100% at the 95% confidence level (1.96 sigma, where sigma is the standard deviation of the net counting rate of the sample).*	Appendix A § 405-A (C) is equivalent to 141.25(c) definition of "detection limit": see §141.26(a)(1) compared to §411 (A)(1).
Applicability and sampling location for existing community water systems or sources. All existing CWSs using ground water, surface water ("systems") must sample at every entry point to the distribution system that is representative of all sources being used **("sampling point")** under normal operating conditions. The system must take each sample at the same **sampling point** unless conditions make another **sampling point** more representative of each source or the **State** has designated a distribution system location, in accordance with **§141.26(a)(2)(ii)(C)**.	§141.26(a)(1)(i)	§411 (A)(1)(a)	Applicability and sampling location for existing CWSs or sources. All existing CWSs using ground water, surface water or systems using both ground and surface water must **sample at every entry point to the distribution system** that is representative of all sources being used under normal operating conditions. The public water system must take each sample at the same **sampling point** unless conditions make another **sampling point** more representative of each source or the **Director** has designated a distribution system location, in accordance with **subsection (A)(2)(b)(iii)** of this section.	See crosswalk below comparing §411 (A)(2)(b)(iii) with §141.26(a)(2)(ii)(c). § 104: DIRECTOR - The Executive Director of the Navajo Nation Environmental Protection Agency (NNEPA) or his or her designee.
Applicability and sampling location for new community water systems or sources. All new CWSs or CWSs that use a new source of water must begin to conduct initial monitoring for the new source within the first quarter after initiating use of the source. CWSs must conduct more frequent monitoring when ordered by the State in the event of possible contamination or when changes in the distribution system or treatment processes occur which may increase in the concentration of radioactivity in finished water.	§141.26(a)(1)(ii)	§411 (A)(1)(b)(i) and (ii)	b.Applicability and sampling location for new CWSs or sources. i. All new CWSs or CWSs that use a new source of water must begin to conduct initial monitoring for the new source within the first quarter after initiating use of the source. ii. CWSs must conduct more frequent monitoring when ordered by the Director in the event of possible contamination or when changes in the distribution system or treatment processes occur which may increase the concentration of radioactivity in finished water.	§ 104: DIRECTOR - The Executive Director of the Navajo Nation Environmental Protection Agency (NNEPA) or his or her designee.
Initial monitoring: Systems must conduct initial monitoring for gross alpha particle activity, radium- 226, radium-228 and uranium as follows:	§141.26(a)(2)	§411 (A)(2)	Initial monitoring: Systems must conduct initial monitoring for gross alpha particle activity, radium-226, radium-228, and uranium as follows:	
Systems without acceptable historical data (defined below) must collect four consecutive quarterly samples at all **sampling points** before December 31, 2007.	§141.26(a)(2)(i)	§411 (A)(2)(a)	Systems without acceptable historical data, as defined below, must collect four consecutive quarterly samples at all **sampling points** before December 31, 2007.	
Grandfathering of data: **States** may allow historical monitoring data collected at a sampling point to satisfy the initial monitoring requirements, for that sampling point, for the following situations:	§141.26(a)(2)(ii)	§411 (A)(2)(b)	Grandfathering of data: The **Director** may allow historical monitoring data collected at a sampling point to satisfy the initial monitoring requirements for that sampling point, for the following situations.	
To satisfy initial monitoring requirements, a community water system having only one entry point to the distribution system may use the monitoring data from the last compliance monitoring period that began between June 2000 and December 8, 2003.	§141.26(a)(2)(ii)(A)	§411 (A)(2)(b)(i)	To satisfy initial monitoring requirements, a CWS having only one entry point to the distribution system may use the monitoring data from the last compliance monitoring period that began between June 2000 and December 8, 2003.	

To satisfy initial monitoring requirements, a community water system with multiple entry points and having appropriate historical monitoring data for each entry point to the distribution system may use the monitoring data from the last compliance monitoring period that began between June 2000 and December 8, 2003.	§141.26(a)(2)(ii)(B)	§411 (A)(2)(b)(ii)	To satisfy initial monitoring requirements, a CWS with multiple entry points and having appropriate historical monitoring data for each entry point to the distribution system may use the monitoring data from the last compliance monitoring period that began between June 2000 and December 8, 2003.	
To satisfy initial monitoring requirements, a community water system with appropriate historical data for a representative point in the distribution system may use the monitoring data from the last compliance monitoring period that began between June 2000 and December 8, 2003, provided that the **State** finds that the historical data satisfactorily demonstrate that each entry point to the distribution system is expected to be in compliance based upon the historical data and reasonable assumptions about the variability of contaminant level between entry points. The **State** must make a written finding indicating how the data conforms to these requirements.	§141.26(a)(2)(ii)(C)	§411 (A)(2)(b)(iii)	To satisfy initial monitoring requirements, a CWS with appropriate historical data for a representative point in the distribution system may use the monitoring data from the last compliance monitoring period that began between June 2000 and December 8, 2003, provided that the **Director** finds that the historical data satisfactorily demonstrate that each entry point to the distribution system is expected to be in compliance based upon the historical data and reasonable assumptions about the variability of contaminant levels between entry points. The **Director** must make a written finding indicating how the data conforms to these requirements.	§ 104: DIRECTOR - The Executive Director of the Navajo Nation Environmental Protection Agency (NNEPA) or his or her designee.
For gross alpha particle activity, uranium, radium-226 and radium-228 monitoring, the **State** may waive the final two quarters of initial monitoring for a sampling point if the results of the samples from the previous two quarters are below the detection limit.	§141.26(a)(2)(iii)	§411 (A)(2)(c)	For gross alpha particle activity, uranium, radium-226, and radium-228 monitoring, the **Director** may waive the final two quarters of initial monitoring for a sampling point if the results of the samples from the previous two quarters are below the detection limit.	§ 104: DIRECTOR - The Executive Director of the Navajo Nation Environmental Protection Agency (NNEPA) or his or her designee.
If the average of the initial monitoring results for a sampling point is above the MCL, the system must collect and analyze quarterly samples at the sampling point until the system has results from four consecutive quarters that are at aor below the MCL, unless the system enters into another schedule as part of a formal compliance agreement with the State.	§141.26(a)(2)(iv)	§411 (A)(2)(d)	If the average of the initial monitoring results for a sampling point is above the MCL, the system must collect and analyze quarterly samples at that sampling point until the system has results from four consecutive quarters that are at or below the MCL, unless the public water system enters into another schedule as part of a formal compliance agreement with the **Director**.	§ 104: DIRECTOR - The Executive Director of the Navajo Nation Environmental Protection Agency (NNEPA) or his or her designee.
Reduced monitoring: **States** may allow community water systems to reduce the future frequency of monitoring from once every three years to once every six or nine years at each sampling point, based on the following criteria:	§141.26(a)(3)	§411 (E)(1)	Reduced Monitoring *§411 (E)(1)The **Director** may allow CWSs to reduce the future frequency of monitoring from once every three years to once every six or nine years at each sampling point, based on the following criteria.*	
If the average of the initial monitoring results for each contaminant (i.e., gross alpha particle activity, uranium, radium-226, or radium-228) is below the detection limit specified in Table B, in §141.25(c)(1), the system must collect and analyze for that contaminant using at least one sample at that sampling point every nine years.	§141.26(a)(3)(i)	§411 (E)(1)(a)	If the average of the initial monitoring results for each contaminant (i.e., gross alpha particle activity, uranium, radium-226, or radium-228) is below the detection limit specified in **Table 400.4, in § 411 (B)(1)**, the system must collect and analyze for that contaminant using at least one sample at that sampling point every nine years.	
For gross alpha particle activity and uranium, if the average of the initial monitoring results for each contaminant is at or above the detection limit but at or below ½ the MCL, the system must collect and analyze for that contaminant using at least one sample at that sampling point every six years.	§141.26(a)(3)(ii)	§411 (E)(1)(b)	For gross alpha particle activity and uranium, if the average of the initial monitoring results for each contaminant is at or above the detection limit but at or below 1/2 the MCL, the system must collect and analyze for that contaminant using at least one sample at that sampling point every six years.	
For combined radium-226 and radium-228, the analytical results must be combined. If the average of the combined initial monitoring results for radium-226 and radium-228 is at or above the detection limit but at or below ½ the MCL, the **system** must collect and analyze for that contaminant using at least one sample at that sampling point every six years.	§141.26(a)(3)(iii)	§411 (E)(1)(c)(i)	c. For combined radium-226 and radium-228, the analytical results must be combined. i. If the average of the combined initial monitoring results for radium-226 and radium-228 is at or above the detection limit but at or below 1/2 the MCL, the CWS must collect and analyze for that contaminant using at least one sample at that sampling point every six years.	
For gross alpha particle activity and uranium, if the average of the initial monitoring results for each contaminant is above ½ the MCL, but at or below the MCL, the system must collect and analyze at least one sample at that sampling point every three years. For combined radium-226 and radium- 228, the analytical results must be combined. If the average of the combined initial monitoring results for radium-226 and radium-228 is above ½ the MCL but at or below the MCL, the system must collect and analyze at least one sample at that sampling point every three years.	§141.26(a)(3)(iii)	§411 (E)(1)(d) §411 (E)(1)(e)	d. For gross alpha particle activity and uranium, if the average of the initial monitoring results for each contaminant is above 1/2 the MCL but at or below the MCL, the public water system must collect and analyze at least one sample at that sampling point every three years. e. For combined radium-226 and radium-228, the analytical results must be combined. If the average of the combined initial monitoring results for radium-226 and radium-228 is above 1/2 the MCL but at or below the MCL, the public water system must collect and analyze at least one sample at that sampling point every three years.	
Systems must use the samples collected during the reduced monitoring period to determine the monitoring frequency for subsequent monitoring periods (e.g., if a system's sampling point is on a nine year monitoring period, and that sample results is above ½ MCL, then the next monitoring period for that sampling point is three years).	§141.26(a)(3)(iv)	§411 (E)(1)(f)	Systems must use the samples collected during the reduced monitoring period to determine the monitoring frequency for subsequent monitoring periods (e.g., if a system's sampling point is on a nine year monitoring period, and the sample result is above 1/2 MCL, then the next monitoring period for that sampling point is three years).	
If a system has a monitoring results that exceeds the MCL while on reduced monitoring, the system must collect and analyze quarterly samples at that sampling point until the system has results from four consecutive quarters that are below the MCL, unless the systemsenters into another schedule as part of a formal compliance agreement with the **State**.	§141.26(a)(3)(v)	§411 (E)(1)(g)	If a system has a monitoring result that exceeds the MCL while on reduced monitoring, the system must collect and analyze quarterly samples at that sampling point until the system has results from four consecutive quarters that are below the MCL, unless the system enters into another schedule as part of a formal compliance agreement with the **Director**.	
Compositing: To fulfill quarterly monitoring requirements for gross alpha particle activity, radium- 226, radium-228, or uranium, a system may composite up to four consecutive quarterly samples from a single entry point if analysis is done within a year of the first sample. States will treat analytical results from the composited as the average analytical results to determine compliance with the MCLs and the future monitoring frequency. If the analytical results from the composited sample is greater than ½ MCL, the state may direct the system to take additional quarterly samples before allowing the system to sample under a reduced monitoring schedule.	§141.26(a)(4)	§411 (A)(3)	Compositing: To fulfill quarterly monitoring requirements for gross alpha particle activity, radium-226, radium-228, or uranium, a public water system may composite up to four consecutive quarterly samples from a single entry point if analysis is done within a year of the first sample. The Director will treat analytical results from the composited as the average analytical result to determine compliance with the MCLs and the future monitoring frequency. If the analytical result from the composited sample is greater than 1/2 MCL, the Director may direct the system to take additional quarterly samples before allowing the system to sample under a reduced monitoring schedule.	
A gross alpha particle activity measurement may be substituted for the required radium-226 measurement provided that the measured gross alpha particle activity does not exceed 5 pCi/L. A gross alpha particle activity measurement may be substituted for the required uranium measurement provided that the measured gross alpha particle activity does not exceed 15 pCi/L. The gross alpha measurement shall have a confidence interval of 95% (1.65σ, where σ is the standard of deviation of the net counting rate of the sample) for radium-226 and uranium. When a system uses a gross alpha particle activity measurement in lieu of radium-226 and/or uranium measurement, the gross alpha particle activity analytical result will be used to determine the future monitoring frequency for radium-226 and/or uranium. If the gross alpha particle activity result is less than detection, ½ the detection limit will be used to determine compliance and the future monitoring frequency.	§141.26(a)(5)	§411 (A)(4)	A gross alpha particle activity measurement may be substituted for the required radium-226 measurement provided that the measured gross alpha particle activity does not exceed 5 pCi/l. A gross alpha particle activity measurement may be substituted for the required uranium measurement provided that the measured gross alpha particle activity does not exceed 15 pCi/l. The gross alpha measurement shall have a confidence interval of 95% (1.65σ, where σ is the standard deviation of the net counting rate of the sample) for radium-226 and uranium. When a public water system uses a gross alpha particle activity measurement in lieu of a radium-226 and/or uranium measurement, the gross alpha particle activity analytical result will be used to determine the future monitoring frequency for radium-226 and/or uranium. If the gross alpha particle activity result is less than detection, 1/2 the detection limit will be used to determine compliance and the future monitoring frequency.	
Monitoring and compliance requirements for beta particle and photon radioactivity. To determine compliance with the maximum contaminant levels in §141.66(d) for beta particle and photon radioactivity, a system must monitor at a frequency as follows:	§141.26(b)	§412 §412 (A)	§412 MONITORING AND COMPLIANCE REQUIREMENTS FOR BETA PARTICLE AND PHOTON RADIOACTIVITY A. To determine compliance with the maximum contaminant levels in § 209 for beta particle and photon radioactivity, a public water system must monitor at a frequency as follows:	
Community water systems (both surface and ground water) designated by the State as vulnerable must sample for beta particle and photon radioactivity. Systems must collect quarterly samples for beta emitters and annual samples for tritium and strontium-90 at each entry point to the distribution system (hereafter called a sampling point), beginning within one quarter after begin notified by the State. Systems already designate by the State must continue to sample until the State reviews and either reaffirms or removes the designation.	§141.26(b)(1)	§412(A)(1)	CWSs (both surface and ground water) designated by the Director as vulnerable must sample for beta particle and photon radioactivity. Systems must collect quarterly samples for beta emitters and annual samples for tritium and strontium-90 at each entry point to the distribution system (hereafter called a sampling point), beginning within one quarter after being notified by the Director. Systems already designated by the Director must continue to sample until the Director reviews and either reaffirms or removes the designation.	

If the gross beta particle activity minus the naturally occurring potassium-40 beta particle activity at a sampling point has a running annual average (computed quarterly) less than or equal to 50 pCi/L (screening level), the **State** may reduce the frequency of monitoring at that sampling point to once every 3 years. Systems must collect all samples required in paragraph (b)(1) of this section during the reduced monitoring period.	§141.26(b)(1)(i)	§412(A)(1)(a)	If the gross beta particle activity minus the naturally occurring potassium-40 beta particle activity at a sampling point has a running annual average (computed quarterly) less than or equal to 50 pCi/L (screening level), the Director may reduce the frequency of monitoring at that sampling point to once every 3 years. Systems must collect all samples required in (A)(1) of this section during the reduced monitoring period.	
For systems in the vicinity of a nuclear facility, the State may allow the CWS to utilize environmental surveillance data collected by the nuclear facility in lieu of monitoring at the system's entry point(s), where the State determines if such data is applicable to a particular water system. In the event that there is a release from a nuclear facility, systems which are using surveillance data must begin monitoring at the community water system's entry point(s) in accordance with paragraph (b)(1).	§141.26(b)(1)(ii)	§412(A)(1)(b)	For systems in the vicinity of a nuclear facility, the Director may allow the CWS to utilize environmental surveillance data collected by the nuclear facility in lieu of monitoring at the system's entry point(s), where the Director determines if such data is applicable to a particular public water system. In the event that there is a release from a nuclear facility, systems which are using surveillance data must begin monitoring at the CWS's entry point(s) in accordance with (A)(1) of this section.	
Community water systems (both surface and ground water) designated by the State as utilizing waters contaminated by effluents from nuclear facilities must sample for beta particle and photon radioactivity. Systems must collect quarterly samples for beta emitters and iodine-131 and annual samples for tritium and strontium-90 at each entry point to the distribution system (hereafter called a sampling point), beginning with one quarter after being notified by the State. Systems already designated by the State as systems using waters contaminated by effluents from nuclear facilities must continue to sample until the State reviews and either reaffirms or removes the designation.	§141.26(b)(2)	§412(A)(2)	CWSs (both surface and ground water) designated by the Director as utilizing waters contaminated by effluents from nuclear facilities must sample for beta particle and photon radioactivity. Systems must collect quarterly samples for beta emitters and iodine-131 and annual samples for tritium and strontium-90 at each entry point to the distribution system (hereafter called a sampling point), beginning within one quarter after being notified by the Director. Systems already designated by the Director as systems using waters contaminated by effluents from nuclear facilities must continue to sample until the Director reviews and either reaffirms or removes the designation.	
Quarterly monitoring for gross beta particle activity shall be based on the analysis of monthly samples or the analysis of a composite of three monthly sample. The former is recommended.	§141.26(b)(2)(i)	§412(A)(2)(a)	Quarterly monitoring for gross beta particle activity shall be based on the analysis of monthly samples or the analysis of a composite of three monthly samples. The former is recommended.	
For iodine-131, a composite of five consecutive daily samples shall be analyze once each quarter. As order by the State, more frequent monitoring shall be conducted when iodine-131 is identified in the finished water.	§141.26(b)(2)(ii)	§412(A)(2)(b)	For iodine-131, a composite of five consecutive daily samples shall be analyzed once each quarter. As ordered by the **Director**, more frequent monitoring shall be conducted when iodine-131 is identified in the finished water.	
Annual monitoring for strontium-90 and tritium shall be conducted by means of the analysis of a composite of four consecutive quarterly samples or analysis of four quarterly samples. The latter procedure is recommended.	§141.26(b)(2)(iii)	§412(A)(2)(c)	Annual monitoring for strontium-90 and tritium shall be conducted by means of the analysis of a composite of four consecutive quarterly samples or analysis of four quarterly samples. The latter procedure is recommended.	
If the gross beta particle activity beta minus the naturally occurring potassium-40 beta particle activity at a sampling point has a running annual average (computed quarterly) less than or equal to 15 pCi/L, the State may reduce the frequency of monitoring at that sampling point to every 3 years. Systems must collect all samples required in paragraph (b)(2) of this section during the reduced monitoring period.	§141.26(b)(2)(iv)	§412(A)(2)(d)	If the gross beta particle activity beta minus the naturally occurring potassium-40 beta particle activity at a sampling point has a running annual average (computed quarterly) less than or equal to 15 pCi/L, the Director may reduce the frequency of monitoring at that sampling point to every 3 years. Systems must collect all samples required in (A)(2) of this section during the reduced monitoring period.	
For systems in the vicinity of a nuclear facility, the State may allow the CWS to utilize environmental surveillance data collected by the nuclear facility in lieu of monitoring at the system's entry point(s), where the State determines if such data is applicable to a particular water system. In the event that there is a release from a nuclear facility, systems which are using surveillance data must begin monitoring at the community water system's entry point(s) in accordance with paragraph (b)(2).	§141.26(b)(2)(v)	§412(A)(2)(e)	For systems in the vicinity of a nuclear facility, the Director may allow the CWS to utilize environmental surveillance data collected by the nuclear facility in lieu of monitoring at the system's entry point(s), where the Director determines if such data is applicable to a particular system. In the event that there is a release from a nuclear facility, systems which are using surveillance data must begin monitoring at the CWS's entry point(s) in accordance with (A)(2) of this section.	
Community water systems designated by the State to monitor for beta particle and photon radioactivity cannot apply to the State for a waiver from the monitoring frequencies specified in paragraphs (b)(1) or (b)(2) of this section.	§141.26(b)(3)	§412(A)(3)	CWSs designated by the **Director** to monitor for beta particle and photon radioactivity cannot apply to the **Director** for a waiver from the monitoring frequencies specified in (A)(1) or (A)(2) of this section.	
Community water systems may analyze for naturally occurring potassium-40 beta particle activity from the same or equivalent sample used for the gross beta particle activity analysis. Systems are allowed to subtract the potassium-40 beta particle activity value from the total gross beta particle activity value to determine if the screening level is exceeded. The potssium-40 beta particle activity must be calculated by multiplying elemental potassium concentrations (in mg/L) by a factor of 0.82.	§141.26(b)(4)	§412(A)(4)	CWSs may analyze for naturally occurring potassium-40 beta particle activity from the same or equivalent sample used for the gross beta particle activity analysis. Systems are allowed to subtract the potassium-40 beta particle activity value from the total gross beta particle activity value to determine if the screening level is exceeded. The potassium-40 beta particle activity must be calculated by multiplying elemental potassium concentrations (in mg/L) by a factor of 0.82.	
If the gross beta particle activity minus the naturally occurring potassium-40 beta particle activity exceeds the screening level, an analysis of the sample must be performed to identify the major radioactive constituents present in the sample and the appropriate doses must be calculated and summed to determine compliance with **§141.66(d)(1), using (d)(2).** Doses must also be calculated and combined for measured levels of tritium and strontium to determine compliance.	§141.26(b)(5)	§412(A)(5)	If the gross beta particle activity minus the naturally occurring potassium-40 beta particle activity exceeds the screening level, an analysis of the sample must be performed to identify the major radioactive constituents present in the sample and the appropriate doses must be calculated and summed to determine compliance with **§ 209 (A)(1)(#3,Note 2)**, using the formula in **§ 209 (A)(1)(#3, Note 3)**. Doses must also be calculated and combined for measured levels of tritium and strontium to determine compliance.	See crosswalk below for § 209 (A)(1)(#3,Note 2) & § 209 (A)(1)(#3, Note 3) equivalent to §141.66(d)(1) & (d)(2)
Systems must monitor monthly at the sampling point(s) which exceed the maximum contaminant level in §141.66(d) beginning the month after the exceedance occurs. Systems must continue monthly monitoring until the system has established, by a rolling average of 3 monthly samples, that the MCL is being met. Systems who establish that the MCL is being met must return to quarterly monitoring until they meet the requirements set forth in paragraphs (b)(1)(ii) or (b)(2)(i) of this section.	§141.26(b)(6)	§412(A)(6)	Public water systems must monitor monthly at the sampling point(s) which exceed the maximum contaminant level in § 209 (A)(1) beginning the month after the exceedance occurs. Public water systems must continue monthly monitoring until the system has established, by a rolling average of 3 monthly samples, that the MCL is being met. Public water systems who establish that the MCL is being met must return to quarterly monitoring until the systems meet the requirements set forth in (A)(1)(b) or (A)(2)(a) of this section.	See crosswalk below for maximum contaminant level in §209 (A)(1) equivalent to §141.66(d).
General monitoring and compliance requirements for radionuclides.	§141.26(c)	§411(C)	Compliance with the MCLs for Radionuclides	
The State may require more frequent monitoring than specified in paragraphs **(a) and (b) of this section**, or may require confirmation samples at its discretion. The results of the initial and confirmation samples will be averaged for use in compliance determinations.	§141.26(c)(1)	§411(C)(1)	The **Director** may require more frequent monitoring than specified in **subsection (A) of this section**, or may require confirmation samples at the **Director's** discretion. The results of the initial and confirmation samples will be averaged for use in compliance determinations.	See crosswalk above for §411(A) monitoring frequencies equivalent to §141.26(a) and (b).
Each public water system shall monitor at the time designated by the State during each compliance period.	§141.26(c)(2)	§411(C)(2)	Each public water system shall monitor at the time designated by the **Director** during each compliance period.	
Compliance with §141.66 (b) through (e) will be determined based on the analytical result(s) obtained at each sampling point. If one sampling point is in violation of an MCL, the system is in violation of the MCL.	§141.26(c)(3)	§411(C)(3)	Compliance with § 209 (A) will be determined based on the analytical result(s) obtained at each sampling point. If one sampling point is in violation of an MCL, the system is in violation of the MCL.	See crosswalk below for § 209 (A) equivalent to §141.66 (b) through (e).
For systems monitoring more than once per year, compliance with the MCL is determined by a running annual average at each sampling point. If the average of any sampling point is greater than the MCL, then the system is out of compliance with the MCL.	§141.26(c)(3)(i)	§411(C)(3)(a)	For systems sampling more than once per year, compliance with the MCL is determined by a running annual average at each sampling point. If the average of any sampling point is greater than the MCL, then the system is out of compliance with the MCL.	
For systems monitoring more than once a year, if any sample result will cause the running average to exceed the MCL at any sample point, the system is out of compliance with the MCL immediately.	§141.26(c)(3)(ii)	§411(C)(3)(b)	For systems sampling more than once per year, if any sample result will cause the running average to exceed the MCL at any sample point, the system is out of compliance with the MCL immediately.	
Systems must include all samples taken and analyzed under the provisions of this section in determining compliance, even if that number is greater than the minimum required.	§141.26(c)(3)(iii)	§411(C)(3)(c)	Systems must include all samples taken and analyzed under the provisions of this section in determining compliance, even if that number is greater than the minimum required.	
If a system does not collect all required sample when compliance is based on a running annual average of quarterly samples, compliance will b based on the running average of the samples collected.	§141.26(c)(3)(iv)	§411(C)(3)(d)	If a system does not collect all required samples when compliance is based on a running annual average of quarterly samples, compliance will be based on the running average of the samples collected.	
If a sample result is less than the detection limit, zero will be used to calculate the annual average, unless a gross alpha particle activity is being used in lieu of radium-226 and/or uranium. If the gross alpha particle activity result is less than detection, ½ the detection limit will be used to calculate the annual average.	§141.26(c)(3)(v)	§411(C)(3)(e)	If a sample result is less than the detection limit, zero will be used to calculate the annual average, unless a gross alpha particle activity is being used in lieu of radium-226 and/or uranium. If the gross alpha particle activity result is less than detection, 1/2 the detection limit will be used to calculate the annual average.	

States have the discretion to delete results of obvious sampling or analytic errors.	§141.26(c)(4)	§411(C)(4)	The Director shall have the discretion to delete results of obvious sampling or analytic errors.	
If the MCL for radioactivity set forth in §141.66(b) through (e) is exceeded, the operator of a community water system must give notice to the State pursuant to §141.31 and to the public as required by subpart Q of this part.	§141.26(c)(5)	§411(C)(5)	If the MCL for radioactivity set forth in § 209 (A) is exceeded, the operator of a CWS must give notice to the Director pursuant to § 502 and to the public as required by § 604.	See crosswalk below for § 209 (A) equivalent to §141.66 (b) through (e). See italics below for § 502 equivalent to §141.31.
§ 141.31 Reporting requirements. *(a) Except where a shorter period is specified in this part, the supplier of water shall report to the State the results of any test measurement or analysis required by this part within (1) The first ten days following the month in which the result is received, or (2) the first ten days following the end of the required monitoring period as stipulated by the State, whichever of these is shortest.*			*§ 502 REPORTING REQUIREMENTS* *A. Except where a shorter period is specified in this part, the public water system owner or operator shall report to the Director the results of any test measurement or analysis required by these regulations within:* *1. The first ten days following the month in which the result is received, or* *2. The first ten days following the end of the required sampling period as stipulated by the Director, whichever of these is shorter.*	
*(b) Except where a different reporting period is specified in this part, the supplier of water must report to the State within **48 hours** the failure to comply with any national primary drinking water regulation (including failure to comply with monitoring requirements) set forth in this part.*			*B. Except where a different reporting period is specified in this part, the public water system owner or operator must report to the Director within 48 hours the failure to comply with NNPDWR (including failure to comply with sampling requirements) set forth in these regulations;*	
(c) The supplier of water is not required to report analytical results to the State in cases where a State laboratory performs the analysis and reports the results to the State office which would normally receive such notification from the supplier.			*C. The public water system owner or operator is not required to report analytical results to the Director in cases where an approved EPA laboratory reports the results directly to the Director.*	
(d) The public water system, within 10 days of completing the public notification requirements under subpart Q of this part for the initial public notice and any repeat notices, must submit to the primacy agency a certification that it has fully complied with the public notification regulations. The public water system must include with this certification a representative copy of each type of notice distributed, published, posted, and made available to the persons served by the system and to the media.			*D. The public water system, within 10 days of completing the public notification requirements under Part VI(Public Notification) of these regulations for the initial public notice and any repeat notices, must submit to the PWSSP a certification that it has fully complied with the public notification regulations. The water system must include with this certification a representative copy of each type of notice distributed, published, posted, or made available to the persons served by the system and to the media.*	
(e) The water supply system shall submit to the State within the time stated in the request copies of any records required to be maintained under § 141.33 hereof or copies of any documents then in existence which the State or the Administrator is entitled to inspect pursuant to the authority of section 1445 of the Safe Drinking Water Act or the equivalent provisions of State law.			*E. The public water system owner or operator shall submit to the Director within the time stated in the request copies of any records required to be maintained under § 503 or copies of any documents which the Director is entitled to inspect pursuant to the authority of §§ 2541 and 2542 of the NNSDWA.*	
SUBPART F—Maximum Contaminant Level Goals and Maximum Residual Disinfectant Level Goals: §141.55 Maximum Contaminant Level Goals for Radionuclides				
Contaminant - MCLG 1. Combined radium-226 and radium-228 - Zero 2. Gross alpha particle activity - Zero 3. Beta particle and photon radioactivity - Zero 4. Uranium - Zero	141.55	§209(A)(1) Table 200.10	Contaminant - MCLG 1. Gross alpha particle activity - Zero 2. Combined radium-226 and radium-228 - Zero 3. Beta particle and photon radioactivity - Zero 4. Uranium - Zero	
SUBPART G—NPDWR: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels: §141.66 Maximum Contaminant Levels for Radionuclides				
Reserved	§141.66(a)			
MCL for combined radium-226 and 228. The maximum contaminant level for combined radium-226 and radium-228 is 5 pCi/L. The combined radium-226 and radium-228 value is determined by the addition of the results of the analysis for radium-226 and the analysis for radium-228.	§141.66(b)	§209(A)(1) Table 200.10 and endnotes to Table 200.10, #1	Contaminant - MCL 2. Combined radium-226 and radium-228 - 5 pCi/L (see note 1 below) Note 1: The combined radium-226 and radium-228 value is determined by adding the results of the analysis for radium-226 and the analysis for radium-228.	
MCL for gross alpha particle activity (excluding radon and uranium). The maximum contaminant level for gross alpha particle activity (including radium-226 but excluding radon and uranium) is 15pCi/L.	§141.66(c)	§209(A)(1) Table 200.10	Contaminant - MCL 1. Gross alpha particle activity - 15 pCi/L (including radium-226 but excluding radon and uranium)	
MCL for beta particle and photon radioactivity.	§141.66(d)	§209(A)(1) Table 200.10	Contaminant - MCL 3. Beta particle and photon radioactivity - 4 millirem/year (see notes 2 and 3 below)	
The average annual concentration of beta particle and photon radioactivity from man-made radionuclides in drinking water must not produce an annual dose equivalent to the total body or any internal organ greater than 4millirem/year (mrem/year).	§141.66(d)(1)	§209(A)(1) Table 200.10 and endnotes to Table 200.10, #2	Note 2: The average annual concentration of beta particle and photon radioactivity from man-made radionuclides in drinking water must not produce an annual dose equivalent to the total body or any internal organ greater than 4 millirem/year (mrem/year).	
Except for the radionuclides listed in **Table A**, the concentration of man-made radionuclides causing 4 mrem total body or organ dose equivalents must be calculated on the basis of 2 liter per day drinking water intake using the 168 hour data list in *"Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and Water for Occupational Exposure,"* NBS (National Bureau of Standards) Handbook 69 as amended August 1963, U.S. Department of Commerce. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this document are available from the National Technical Information Service, NTIS, ADA 280 282, U.S. Department of Commerce, 5282 Port Royal Road, Springfield, Virginia 22161. The toll-free number is 800-553-6857. Copies may be inspected at EPA's Drinking Water Docket, 401 M Street, S.W., Washington, DC 20460; or at the Office of the Federal Register, 800 North Capitol Street, N.W., Suite 700, Washington, DC. If two or more radionuclides are present, the sum of their annual dose equivalent to the total body or to any organ shall not exceed 4 mrem/year.	§141.66(d)(2)	§209(A)(1) Table 200.10 and endnotes to Table 200.10, #3	Note 3: Except for the radionuclides listed in Table **200.11**, the concentration of man-made radionuclides causing 4 mrem total body or organ dose equivalents must be calculated on the basis of 2 liters per day drinking water intake using the 168 hour data list in "Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and in Water for Occupational Exposure," NBS (National Bureau of Standards) Handbook 69 as amended August 1963, U.S. Department of Commerce[1]. If two or more radionuclides are present, the sum of their annual dose equivalent to the total body or to any organ shall not exceed 4 mrem/year. [1] This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this document are available from the National Technical Information Service, NTIS ADA 280 282, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The toll-free number is 800-553-6847. Copies may be inspected at EPA's Drinking Water Docket, 401 M Street, SW., Washington, DC 20460; or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC	

Table A - Average Annual Concentrations Assumed to Produce A Total Body or Organ Dose of 4 mrem/year. Radionuclide Critical Organ pCi per Liter Tritium Total body 20,000 Strontium-90 Bone marrow 8	§141.66(d)(2) Table A	§209(A)(1) Table 200.11	Table 200.11 - Average Annual Concentrations Assumed to Produce A Total Body or Organ Dose of 4 mrem/year. Radionuclide Critical Organ pCi per Liter Tritium Total body 20,000 Strontium-90 Bone marrow 8	
MCL for uranium. The maximum contaminant level for uranium is 30µg/L.	§141.66(e)	§209(A)(1) Table 200.10, #4	Contaminant - MCL 4. Uranium - 30 micrograms per liter (µg/L)	
Compliance dates	§141.66(f)	§209(B)	Compliance dates for combined radium-226 and radium-228, gross alpha particle activity, gross beta particle, photon radioactivity, and uranium:	
Compliance dates for combined radium 226 and 228, gross alpha particle activity, gross beta particle and photon radioactivity and uranium: Community water systems must comply with the MCLs listed in paragraphs (b), (c), (d) and (e) of this section beginning December 8, 2003 and compliance shall be determined in accordance with the requirements of §141.25 and §141.26. Compliance with reporting requirements for the radionuclides under Appendix A to Subpart O and Appendix A and B to Subpart Q is required on December 8, 2003.	§141.66(f)(1)	§209(B)(1)	CWSs must comply with the MCLs listed in Table 200.10 beginning December 8, 2003 and compliance shall be determined in accordance with the requirements of § 411. Compliance with the reporting requirements for radionuclides is listed in Part XII (Consumer Confidence Report) Appendix F and Part VII (Public Notification) Appendices B and is required beginning December 8, 2003.	See crosswalk above for § 411 equivalent to §141.25 and §141.26. Part XII (Consumer Confidence Report) Appendix F equivalent to Appendix A to Subpart O. See italics below. Part VII (Public Notification) Appendices B is equivalent to Appendix A and B to Subpart Q.
Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta particle and photon radioactivity in excess of the MCL over many years may have an increased risk of getting cancer.	*App A to SubO*	*App F*	*Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.*	
Best Available Technologies (BATs) for Radionuclides. The Administrator, pursuant to section 1412 of the Act, hereby identifies as indicated in the following table the best technology available for achieving compliance with the maximum contaminant levels for combined radium-226 and radium- 228, uranium, gross alpha particle activity and beta particle and photon radioactivity.	§141.66(g)	§209(C) and (C)(1)	BATs for radionuclides The **Administrator** pursuant to § 1412 of the SDWA has identified as indicated in the following table, the best available technology to achieve compliance with the MCLs for combined radium-226 and radium-228, uranium, gross alpha particle activity, beta particle and photon radioactivity.	
Contaminant: BAT 1. Combined Radium-226 and Radium-228: Ion Exchange, Reverse Osmosis, Lime Softening 2. Uranium: Ion Exchange, Reverse Osmosis, Lime Softening, Coagulation/Filtration 3. Gross alpha particle activity (Excluding Radon and Uranium): Reverse Osmosis 4. Beta Particle and Photon Radioactivity: Ion Exchange, Reverse Osmosis	§141.66(g) Table B	§209(C)(1), Table 200.12	Contaminant:BAT 1. Combined Radium-226 and Radium-228: Ion Exchange, Reverse Osmosis, Lime Softening 2. Uranium: Ion Exchange, Reverse Osmosis, Lime Softening, Coagulation/Filtration 3. Gross alpha particle activity (Excluding Radon and Uranium): Reverse Osmosis 4. Beta Particle and Photon Radioactivity: Ion Exchange, Reverse Osmosis	
List of Small Systems Compliance Technologies for Radionuclides and Limitations to Use Limitations/Operator Skill/Raw Water Quality Range (see footnotes)/Level Required and Considerations 1. Ion Exchange (IE)/(a)/Intermediate/All ground waters 2. Point of Use (POU[2]) IE/ (b)/Basic/All ground waters 3. Reverse Osmosis (RO)/(c)/Advanced/Surface waters usually require pre-filtration 4. POU[2] RO/(b)/Basic/Surface waters usually require pre-filtration 5. Lime Softening/(d)/Advanced/All waters 6. Green Sand Filtration/(e)/Basic 7. Co-precipitation with Barium Sulfate/(f)/Intermediate to Advanced/Groundwaters with suitable water quality 8. Electrodialysis/Electrodialysis Reversal/Basic to Intermediate/All ground waters 9. Pre-formed Hydrous Manganese Oxide Filtration/(g)/Intermediate/All ground waters 10. Activated alumina/(a), (h)/Advanced/All ground waters, competing anion concentrations may affect regeneration frequency 11. Enhanced coagulation/filtration/(i)/Advanced/Can treat a wide range of water qualities	§141.66(h) Table C	§209(D), Table 200.13	Compliance technologies for radionuclides for small water systems Limitations/Operator Skill/Raw Water Quality Range (see footnotes)/Level Required and Considerations 1. Ion Exchange (IE)/(a)/Intermediate/All ground waters 2. Point of Use (POU2) IE/ (b)/Basic/All ground waters 3. Reverse Osmosis (RO)/(c)/Advanced/Surface waters usually require pre-filtration 4. POU2 RO/(b)/Basic/Surface waters usually require pre-filtration 5. Lime Softening/(d)/Advanced/All waters 6. Green Sand Filtration/(e)/Basic 7. Co-precipitation with Barium Sulfate/(f)/Intermediate to Advanced/Groundwaters with suitable water quality 8. Electrodialysis/Electrodialysis Reversal/Basic to Intermediate/All ground waters 9. Pre-formed Hydrous Manganese Oxide Filtration/(g)/Intermediate/All ground waters 10. Activated alumina/(a), (h)/Advanced/All ground waters, competing anion concentrations may affect regeneration frequency 11. Enhanced coagulation/filtration/(i)/Advanced/Can treat a	
See §141.66(h) Table C for footnotes.	§141.66(h) Table C, footnotes	§209(D), Table 200.13, footnotes	For note c. NNPDWR states the same as CFR: "See other RO limitations described in the SWTR Compliance Technologies Table."	
Compliance Technologies by System Size Category for Radionuclides NPDWRs 1. Combined radium-226 and radium-228 25-500/501-3,300/3,300-10,000 1,2,3,4,5,6,7,8,9/1,2,3,4,5,6,7,8,9/1,2,3,4,5,6,7,8,9 2. Gross alpha particle activity 25-500/501-3,300/3,300-10,000 3,4/ 3,4/ 3,4 3. Beta particle actvity and photon activity 25-500 /501-3,300/ 3,300-10,000 1,2,3,4 /1,2,3,4/1,2,3,4 4. Uranium 25-500/501-3,300/3,300-10,000 1,2,4,10,11/1,2,3,4,5,10,11/1,2,3,4,5,10,1	§141.66(h) Table D	§209(D), Table 200.14	They are the same.	
Note: (1) Numbers correspond to these technologies found listed in the table C of §141.66(h).	§141.66(h) Table D	§209(D), Table 200.14, footnotes	NOTE: 1Numbers correspond to those technologies found listed in the Table 200.13 of this section.	
SUBPART O—Consumer Confidence Reports: Appendix A to Subpart O of Part 141				
Regulated Contaminants Table	Appendix A to Subpart O	Appendix F-CCR	Regulated Contaminants	
Beta/photon emitters (mrem/year) MCL in mg/L: 4mrem/yr MCL in CCR units: 4 MCLG: 0 Major sources in drinking water: decay of natural and man-made deposits Health effects: certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drinking water containing beta particle and photon radioactivity in excess of the MCL over many years may have an increase risk of getting cancer.		Appendix F-CCR Radioactive contaminants	Beta/photon emitters (mrem/year) MCL in mg/L: 4mrem/yr MCL in CCR units: 4 MCLG: 0 Major sources in drinking water: decay of natural and man-made deposits Health effects: certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drinking water containing beta particle and photon radioactivity in excess of the MCL over many years may have an increase risk of getting cancer.	
Alpha emitters (pCi/L) MCL in mg/L: 15 pCi/L MCL in CCR units: 15 MCLG: 0 Major sources in drinking water: Erosion of natural deposits Health effects: Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drinking water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.		Appendix F-CCR	Alpha emitters (pCi/L) MCL in mg/L: 15 pCi/L MCL in CCR units: 15 MCLG: 0 Major sources in drinking water: Erosion of natural deposits Health effects: Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drinking water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.	
Combined radium (pCi/L) MCL in mg/L: 5 pCi/L MCL in CCR units: 5 MCLG: 0 Major sources in drinking water: Erosion of natural deposits Health effects: Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.		Appendix F-CCR	Combined radium (pCi/L) MCL in mg/L: 5 pCi/L MCL in CCR units: 5 MCLG: 0 Major sources in drinking water: Erosion of natural deposits Health effects: Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.	
Uranium (pCi/L) MCL in mg/L: 30µg/L MCL in CCR units: 30 MCLG: 0 Major sources in drinking water: Erosion of natural deposits Health effects: Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.		Appendix F-CCR	Uranium (pCi/L) MCL in mg/L: 30µg/L MCL in CCR units: 30 MCLG: 0 Major sources in drinking water: Erosion of natural deposits Health effects: Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.	
SUBPART Q—Public Notification of Drinking Water Violations: APPENDIX A to SUBPART Q of PART 141 - NPDWR Violations and Other Situations Requiring Public Notice[1]				
I. Violations of National Primary Drinking Water Regulations (NPDWR) [3]	I	Appendix B, 601-B	601-B NNPDWR Violations and Other Situations Requiring Public Notice[1]	

1. Beta/photon emitters: MCL/MRDL/TT Violations[2] Tier of Public Notice Required/Citation 2/**141.66(d)** Monitoring and testing procedure violations Tier of Public Notice Required/Citation 3/**141.25(a), 141.26(b)**	I.F.1.	Appendix B, 601-B, F.1	1. Beta/photon emitters: MCL/MRDL/TT Violations Tier of Public Notice Required/Citation 2/**209(A)(1)** Monitoring and testing procedure violations Tier of Public Notice Required/Citation 3/**Appendix A (§405-A), 412**	
2. Alpha emitters: MCL/MRDL/TT Violations[2] Tier of Public Notice Required/Citation 2/**141.66(c)** Monitoring and testing procedure violations Tier of Public Notice Required/Citation 3/**141.25(a), 141.26(a)**	I.F.2.	Appendix B, 601-B, F.2	2. Alpha emitters: MCL/MRDL/TT Violations[2] Tier of Public Notice Required/Citation 2/**209(A)(1)** Monitoring and testing procedure violations Tier of Public Notice Required/Citation 3/**Appendix A (§405-A), 411**	
3. Combined radium (226&228): MCL/MRDL/TT Violations[2] Tier of Public Notice Required/Citation 2/**141.66(b)** Monitoring and testing procedure violations Tier of Public Notice Required/Citation 3/**141.25(a), 141.26(a)**	I.F.3.	Appendix B, 601-B, F.3.	3. Combined radium (226&228): MCL/MRDL/TT Violations[2] Tier of Public Notice Required/Citation 2/**209(A)(1)** Monitoring and testing procedure violations Tier of Public Notice Required/Citation 3/**Appendix A (§405-A), 411**	
4. Uranium: MCL/MRDL/TT Violations[2]Tier of Public Notice Required/Citation 2[9]/**141.66(e)** Monitoring and testing procedure violations Tier of Public Notice Required/Citation 3[10] /**141.25(a), 141.26(a)**	I.F.4.	Appendix B, 601-B, F.4.	4. Uranium: MCL/MRDL/TT Violations[2]Tier of Public Notice Required/Citation 2[9]/**209(A)(1)** Monitoring and testing procedure violations Tier of Public Notice Required/Citation 3[10] /**Appendix A (§405-A), 411**	
1. Violations and other situations not listed in this table (e.g., reporting violations and failure to prepare Consumer Confidence Reports) do no require notice, unless otherwise determined by the primary agency. Primacy agencies may, at their option, also require a more stringent public notice tier (e.g., Tier 1 instead of Tier 2 or Tier 2 instead of Tier 3) for specific violations and situations listed in this Appendix, as 3 for specific violations and situations listed in this Appendix, as authorized under **Sec. 141.202 (a) and Sec. 141.203 (a).** 2. MCL-Maximum contaminant level, MRDL-Maximum residual disinfectant level, TT-Treatment technique.	Appendix A, Endnotes	Appendix B, Endnotes #1 and #2.	1.Violations and other situations not listed in this table (e.g., failure to prepare Consumer Confidence Reports) do not require notice unless otherwise determined by the primary agency. Primacy agencies may, at their option, also require a more stringent public notice tier (e.g., Tier 1 instead of Tier 2 or Tier 2 instead of Tier 3) for specific violations and situations listed in this Appendix, as authorized under **§ 604(a) and § 605(a).** 2.MCL--Maximum contaminant level, MRDL--Maximum residual disinfectant level, TT--Treatment technique.	
3. The term Violations of National Primary Drinking Water Regulations (NPDWR) is used here to include violations of MCL, MRDL, Treatment Technique, monitoring and testing procedure requirements.	Appendix A, Endnotes	Appendix B, Endnotes #3	3.The term Violations of Navajo Nation Primary Drinking Water Regulations (NNPDWR) is used here to include violations of MCL, MRDL, treatment technique, monitoring, and testing procedure requirements.	
9. The uranium MCL Tier 2 violation citations are effective December 8, 2003 for all community water systems. 10. The uranium Tier 3 violation citations are effective December 8, 2003 for all community water systems.	Appendix A, Endnotes	Appendix B, Endnotes #9 and 10.	9.The uranium MCL Tier 2 violation citations are effective December 8, 2003 for all community water systems. 10.The uranium MCL Tier 3 violation citations are effective December 8, 2000 for all community water systems.	
APPENDIX B to SUBPART Q of PART 141- Standard Health Effects Language for Public Notification				
G. Radioactive Contaminants Contaminant/MCLG[1] mg/L/MCL[2] mg/L/Standard Health Effects Language for PN 76. Beta/photon emitters/Zero/4 mrem/yr[15]/Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.	Appendix B, G.76	Appendix B, 602-B, G.76	G. Radioactive Contaminants Contaminant/MCLG[1] mg/L/MCL[2] mg/L/Standard Health Effects Language for PN 76. Beta/photon emitters/Zero/4 mrem/yr[15]/Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.	
Contaminant/MCLG[1] mg/L/MCL[2] mg/L/Standard Health Effects Language for PN 77. Alpha emitters/Zero/17 pCi/L[17]/Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.	Appendix B, G.77	Appendix B, 602-B, G.77	Contaminant/MCLG[1] mg/L/MCL[2] mg/L/Standard Health Effects Language for PN 77. Alpha emitters/Zero/15 pCi/L[16]/Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.	
Contaminant/MCLG[1] mg/L/MCL[2] mg/L/Standard Health Effects Language for PN 78. Combined radium (226 & 228)/Zero/5 pCi/L/Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.	Appendix B, G.78	Appendix B, 602-B, G.78	Contaminant/MCLG[1] mg/L/MCL[2] mg/L/Standard Health Effects Language for PN 78. Combined radium (226 & 228)/Zero/5 pCi/L/Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.	
Contaminant/MCLG[1] mg/L/MCL[2] mg/L/Standard Health Effects Language for PN 79. Uranium[16]/Zero/30µg/L/Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.	Appendix B, G.79.	Appendix B, 602-B Standard Health Effects Language for Public Notification, G.79.	Contaminant/MCLG1 mg/L/MCL2 mg/L/Standard Health Effects Language for PN 79. Uranium[17]/Zero/30µg/L/Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.	
1. MCLG-Maximum contaminant level goal 2. MCL-Maximum contaminant level 16. The uranium MCL is effective December 8, 2003 for all community water systems.	Appendix B, Endnotes	Appendix B, 1 and 2 Endnotes #17	1.MCLG--Maximum contaminant level goal. 2.MCL--Maximum contaminant level. 17.The uranium MCL is effective December 8, 2003 for all community water systems.	
15. Millirems per years	Appendix B, Endnotes	Appendix B, Endnote #15.	15.Millirems per years.	
17. Picocuries per liter	Appendix B, Endnotes	Appendix B, Endnote #17	16.Picocuries per liter.	