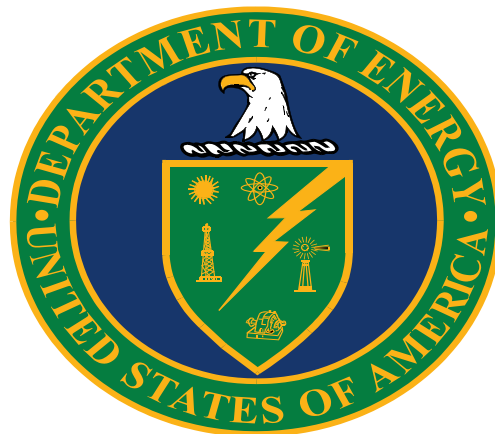


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**Title 40 CFR Part 191  
Subparts B and C  
Compliance Recertification Application 2019  
for the  
Waste Isolation Pilot Plant**

**Inspections  
(40 CFR 194.21)**



**United States Department of Energy  
Waste Isolation Pilot Plant**

Carlsbad Field Office  
Carlsbad, New Mexico

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**Compliance Recertification Application 2019**  
**Inspections**  
**(40 CFR 194.21)**

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### **Acronyms and Abbreviations**

CCA	Compliance Certification Application
CFR	Code of Federal Regulations
CRA	Compliance Recertification Application
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
WIPP	Waste Isolation Pilot Plant

### **Elements and Chemical Compounds**

MgO	magnesium oxide
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## 21.0 Inspections (40 CFR 194.21)

### 21.1 Requirements

#### 194.21 Inspections

- (a) The Administrator or the Administrator's authorized representative(s) shall, at any time:
1. Be afforded unfettered and unannounced access to inspect any area of the WIPP, and any locations performing activities that provide information relevant to compliance application(s), to which the Department has rights of access. Such access shall be equivalent to access afforded Department employees upon presentation of credentials and other required documents.
  2. Be allowed to obtain samples, including split samples, and to monitor and measure aspects of the disposal system and the waste proposed for disposal in the disposal system.
- (b) Records (including data and other information in any form) kept by the Department pertaining to the WIPP shall be made available to the Administrator or the Administrator's authorized representative upon request. If requested records are not immediately available, they shall be delivered within 30 calendar days of the request.
- (c) The Department shall, upon request by the Administrator or the Administrator's authorized representative, provide permanent, private office space that is accessible to the disposal system. The office space shall be for the exclusive use of the Administrator or the Administrator's authorized representative(s).
- (d) The Administrator or the Administrator's authorized representative(s) shall comply with applicable access control measures for security, radiological protection, and personal safety when conducting activities pursuant to this section.

### 21.2 Background

40 CFR 194.21 ([U.S. EPA 1996](#)) provides the U.S. Environmental Protection Agency (EPA) with the authority to:

- Inspect any area of the Waste Isolation Pilot Plant (WIPP), and any locations performing activities that provide information relevant to compliance application(s),
- Obtain samples, including split samples, and to monitor and measure aspects of the disposal system and the waste proposed for disposal in the disposal system and
- Examine records kept by the Department of Energy (DOE) pertaining to the WIPP.

EPA inspections at the WIPP include magnesium oxide (MgO) emplacement, waste emplacement, the monitoring programs established to collect data for each of the monitored parameters identified in Table 21-1, and the examination of documentation (records) to verify compliance at the WIPP.

**Table 21-1. Monitored Parameters**

Monitored Parameters
<p>Geomechanical Parameters</p> <ul style="list-style-type: none"> <li>• Creep closure</li> <li>• Extent of deformation</li> <li>• Initiation of brittle deformation</li> <li>• Displacement of deformation features</li> </ul> <p>Hydrological Parameters</p> <ul style="list-style-type: none"> <li>• Culebra groundwater composition</li> <li>• Change in Culebra groundwater flow direction</li> </ul> <p>Waste Activity Parameters</p> <ul style="list-style-type: none"> <li>• Waste activity subsidence parameter</li> <li>• Subsidence measurements</li> </ul> <p>Drilling-Related Parameters</p> <ul style="list-style-type: none"> <li>• Drilling rate</li> <li>• The probability of encountering a Castile brine reservoir</li> </ul>

Information and data from previous compliance certification and recertification applications that form the basis of past DOE compliance positions and past EPA decision documents are found in the 2014 Compliance Recertification Application (CRA-2014) ([U.S. DOE 2014](#)).

### 21.3 Changes or New Information Since the CRA-2014

Table 21-2 lists the inspections conducted by the EPA under the authority of 40 CFR 194.21 since the ones reported in the CRA-2014.

**Table 21-2. Post-CRA-2014 40 CFR 194.21 Inspection Results (2013–2017)**

Date of Inspection	Inspection Type	Inspection Results	Reference
October 22-24, 2013	Inspections at the WIPP to examine the DOE’s ability to monitor the 10 parameters listed in the Compliance Certification Application (CCA) section 7.0 Table 7.7, and to verify the proper emplacement of waste and MgO in the WIPP repository.	The EPA found that the DOE effectively monitored the required 10 parameters identified in Table 7-7 of the CCA as listed in Table 21-1. The EPA also concluded that waste emplacement activities were adequate and MgO was calculated and emplaced properly, EPA Docket Number: A-98-49, II-B3-127.	<a href="#">(U.S. EPA 2014)</a>



Date of Inspection	Inspection Type	Inspection Results	Reference
April 7-9 ,2015	Inspection at the WIPP taking into account that the facility was still undergoing active recovery resulting from the February 2014 unplanned radiological release and not emplacing waste. Although the inspection followed the format of a typical annual inspection, inspection activities were tailored to the current operational state of the facility. EPA examined the DOE's ability to monitor the 10 parameters listed in the CCA section 7.0 Table 7.7, and reviewed waste emplacement records.	The EPA found that the DOE effectively monitored the required 10 parameters identified in Table 7-7 of the CCA as listed in Table 21-1. The EPA also determined that waste emplacement activities and records continue to be adequate, EPA Docket Number: EPA-HQ-OAR-2001-0012-0458.	<a href="#">(U.S. EPA 2016)</a>
November 7-9, 2016	Inspections at the WIPP to examine the DOE's ability to monitor the 10 parameters listed in the CCA section 7.0 Table 7.7, and to observe the status of WIPP programs and procedures following facility recovery activities and prior to the resumption of active waste emplacement.	The EPA found that the DOE effectively monitored the required 10 parameters identified in Table 7-7 of the CCA as listed in Table 21-1. The EPA reviewed recovery operations, Nuclear Waste Partnership procedures, training records, exercise records and records associated with selected stored containers. The procedures for processing Contact Handled waste upon facility restart were reviewed and found to be adequate; however, no waste had been emplaced since 2014. The EPA concludes that the DOE's emplacement activities and records are adequate, and that cellulosic, plastic and rubber and MgO are appropriately tracked, EPA Docket Number: EPA-HQ-OAR-2001-0012-0469.	<a href="#">(U.S. EPA 2017)</a>
October 24-26, 2017	Inspections at the WIPP to examine the DOE's ability to monitor the 10 parameters listed in the CCA section 7.0 Table 7.7, and to verify the proper emplacement of waste and MgO in the WIPP repository.	Inspection results were not received by the data cutoff date of January 8, 2018.	None

During each of the inspections listed in Table 21-2, the DOE met all the requirements of 40 CFR 194.21, including providing the EPA with unfettered access to facilities, access to the records

requested, and access to private office space. Additionally, the DOE actively supported the EPA's inspection activities as required by 40 CFR 194.21.

The DOE continues to comply with 40 CFR 194.21, and there are no outstanding issues with the EPA regarding 40 CFR 194.21.

## 21.4 References

(\*Indicates a reference that has not been previously submitted.)

U.S. DOE. 2014. Title 40 CFR Part 191 Subparts B and C. Compliance Recertification Application for the Waste Isolation Pilot Plant (March). Carlsbad, NM: Carlsbad Field Office. DOE/WIPP-14-3503.\*

U.S. EPA. 1996. 40 CFR Part 194: Criteria for the Certification and Recertification of the Waste Isolation Pilot Plant's Compliance with the 40 CFR Part 191 Disposal Regulations: 61 Federal Register, 5223-5245 (February 9, 1996).

U.S. EPA. 2014. Letter From Jonathan Edwards, Director, Radiation Protection Division, EPA, to Mr. Jose Franco, Manager, Carlsbad Field Office, October 1, 2014, EPA Inspection Number EPA-WIPP-10-13a, b and c of the Waste Isolation Pilot Plant, Monitoring and Waste Emplacement, October 22-24, 2013.\*

U.S. EPA. 2016. Letter From Jonathan Edwards, Director, Radiation Protection Division, EPA, to Mr. Todd Shrader, Manager, Carlsbad Field Office, March 14, 2016, EPA Inspection Number EPA Inspection Number EPA-WIPP-10.13-22c of the Waste Isolation Pilot Plant, Monitoring and Waste Emplacement, April 7-9, 2015.\*

U.S. EPA. 2017. Letter From Alan D. Perrin, Acting Director, Radiation Protection Division, EPA, to Mr. Todd Shrader, Manager, Carlsbad Field Office, February 17, 2017, EPA Inspection Number EPA-WIPP-11.07-09a, b and c of the Waste Isolation Pilot Plant, Monitoring and Waste Emplacement, November 7-9, 2016.\*