

**WIPP Hazardous Waste Facility Permit  
Renewal Application Update — 10206**

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**ABSTRACT**

Hazardous waste permits issued by the New Mexico Environment Department (NMED) have a maximum term of 10-years from the permit effective date. The permit condition in the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (Permit) governing renewal applications, directs the Permittees to submit a permit application 180-days prior to expiration of the Permit unless an alternate date is established by the NMED.

On October 27, 1999, the Secretary of the NMED issued to the United States Department of Energy (DOE), the owner and operator of WIPP, and to Washington TRU Solutions LLC (WTS), the Management and Operating Contractor and the cooperorator of the WIPP facility, a Permit to manage, store, and dispose hazardous waste at the WIPP facility. The DOE and WTS are collectively known as the Permittees. The Permit is effective for a fixed term not to exceed ten years from the effective date of the Permit -- November 26, 1999. Because Permittees may renew a Permit by submitting a new permit application at least 180 calendar days before the expiration date, the submittal date for the WIPP Permit renewal application was May 30, 2009. The Permittees submitted their Renewal Application on May 28, 2009.

Part A of the Renewal Application must include the information required by 40 CFR §270.13, Contents of Part A of the permit application. Additionally, Part B of the Renewal Application must include general WIPP information required by 40 CFR §270.14, Contents of Part B: General Requirements, as well as WIPP specific information required by 40 CFR §270.15, Specific Part B information requirements for containers; and 40 CFR §270.23, Specific Part B information requirements for miscellaneous units. Any new or revised information must be presented in renewal applications.

The Renewal Application the Permittees submitted on May 28, 2009, deviated from the Permittees' original plans to submit a renewal application based on the current Permit, with additional requests for authorization to dispose of TRU mixed waste in Panel 8, and inclusion of the WIPP Mine Ventilation Rate Monitoring Plan. However, the Permittees amended the Renewal Application to parallel the original intent of minimizing the changes to the Permit. The rationale for changing the approach to the content of the Renewal Application is to address public comment received during and subsequent to pre-application meetings and to facilitate the renewal process.

**INTRODUCTION**

The Department of Energy's Waste Isolation Pilot Plant (WIPP), in Carlsbad, New Mexico, is a deep geologic repository for the disposal of defense-related transuranic (TRU) mixed-waste.

Defense-related TRU mixed-waste is shipped from TRU waste generator sites around the country and is disposed in ancient bedded salt 2,150 feet below the surface of the earth. It is the only such disposal facility in the world. The Department of Energy (DOE) is the owner and operator of the WIPP facility; Washington TRU Solutions LLC (WTS) is the co-operator. Collectively they are known as the Permittees.

TRU mixed waste contains both a radiological component and a hazardous waste component. The hazardous waste component is regulated by the NMED. As the WIPP Permit neared its tenth anniversary, a Renewal Application was being prepared. A complete and timely application must be submitted 180-days prior to the Permit expiration date in order to continue with permitted activities at the WIPP facility. If a timely and complete application was not submitted in the time prescribed, the Permittees would have to either cease operations while submitting new Resource Conservation and Recovery Act (RCRA) Part A and Part B applications or begin closure activities at the WIPP facility. Furthermore, TRU waste generator sites would have no place to ship their TRU-mixed waste for disposal.

## **WIPP REGULATORY REQUIREMENTS AND MILESTONE DATES**

Prior to writing a draft of the Renewal Application, a regulatory review was performed to ensure that the application, when complete, would comply with applicable regulatory requirements codified since the regulator wrote the 1999 WIPP Permit. The Federal Register was used to obtain final rules that pertained to the Resource Conservation and Recovery Act since 1997 – the year of the RCRA regulations the NMED used to write the WIPP Permit.

Subsequent to assembling the RCRA final rules since 1997, the list was evaluated to determine whether the RCRA final rules impacted the permitted WIPP activities. If any of the final rules did impact the permitted WIPP activities, a determination of how the Permittees addressed the final rule was made. The Permittees determined that either the new rule 1) did not need to be addressed in the WIPP Permit, or 2) the Permit has already been modified to incorporate the new rule.

The WIPP facility was issued its Permit [1] on October 27, 1999. The Permit became effective 30-days later on November 26, 1999. In accordance with federal [2], state [3], and WIPP Permit requirements, a renewal application is required to be submitted 180-days prior to November 26, 2009, making the due date for the Renewal Application May 30, 2009. Both federal and New Mexico regulations state that the maximum term of a permit is ten years. As with all applicants, the Permittees must include in the Renewal Application all the requirements for a Part A Permit and a Part B Permit.

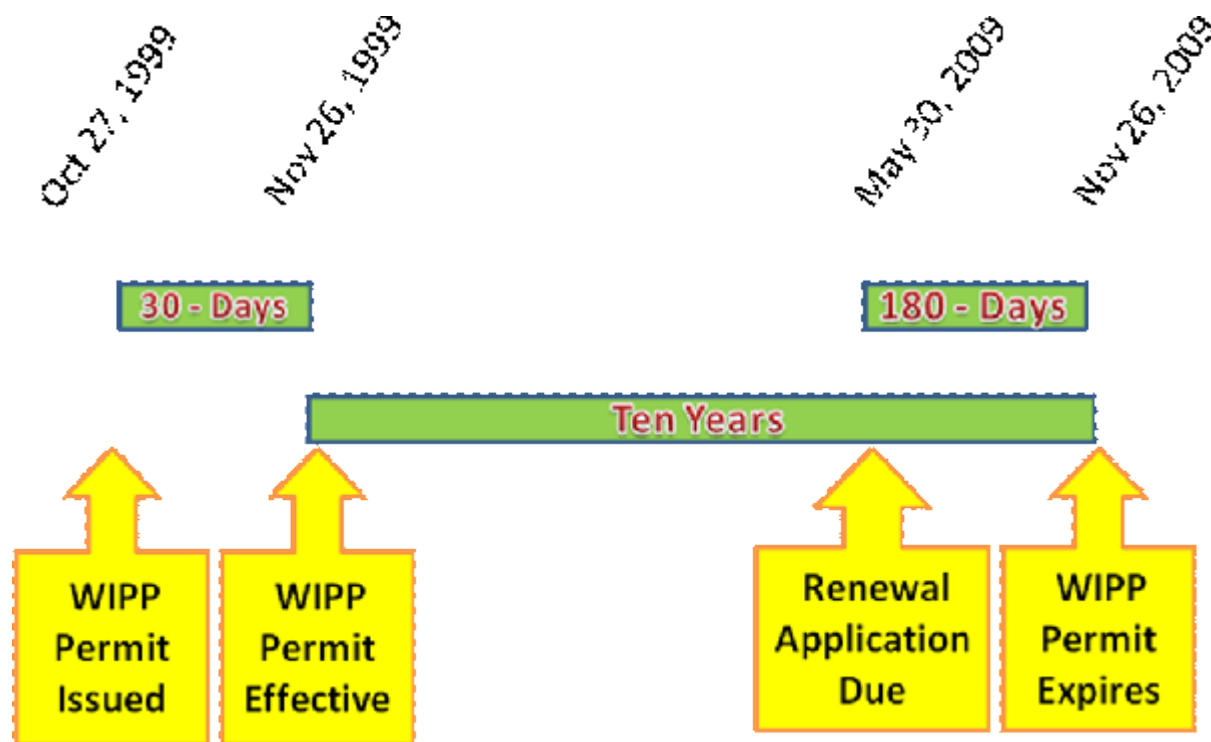


Figure 1. Permit Timeline (not to scale)

### NECESSARY INFORMATION

The WIPP Permit Part A application contains the basic information about the WIPP facility such as:

- General description of the facility
- General description of the activities for which a permit is required
- A list of the hazardous waste numbers the facility proposes to treat/store/dispose
- Operator's name, address, telephone number
- Owner's name, address, and telephone number
- A list of all permits or construction approvals obtained or applied for
- General description of the hazardous debris to treat/store/dispose
- Certification statement by owners/operators

The necessary information for WIPP Permit Part B applications is specific. For example, the information required consists of:

- Chemical and physical analysis of the hazardous waste and hazardous debris to be handled at the facility
- Descriptions and procedures for security, prevention of emergencies, traffic
- Inspection schedule
- Contingency plan
- Closure and post-closure plans
- How the waste will be received, managed, stored, and disposed

## **PUBLIC PARTICIPATION**

When the state of New Mexico was granted the authority to administer the federal hazardous waste program in New Mexico, the federal regulations were adopted with only a few modifications, exceptions, or omissions. In addition to the federal (RCRA) requirements for permit applications (and re-applications), New Mexico included requirements for public participation in the permit application process including decision making procedures applicable to RCRA permits. Specifically germane to the application process are the requirements from 40 CFR 124.31, *pre-application public meeting and notice*.

Codified at 20.4.1.900 New Mexico Administrative Code, the public participation requirements call for a pre-application meeting and proper noticing of the meeting. Prior to submittal of the Renewal Application, the Permittees were required to hold at least one meeting with members of the public in order to solicit questions from the community and inform the community of proposed hazardous waste management activities.

The public participation regulations also specify how and when the WIPP Permittees are to notify the public.

*A newspaper advertisement:* The DOE placed advertisements in newspapers throughout New Mexico, including Carlsbad, Hobbs, Roswell, Las Cruces, Albuquerque, and Santa Fe.

*A visible and accessible sign:* A large sign was placed at the WIPP site containing the required information.

*A broadcast media announcement:* Radio announcements were made during two different periods before the meetings to not only to notify the public but to remind them as the meeting dates grew nearer.

*A notice to the permitting agency:* The notice was submitted to the New Mexico Environment Department in the *Public Participation Information* Section of the Renewal Application.

However, the Permittees have had a track record of going above and beyond what is required by the public participation regulations. Examples of how the WIPP Project exemplifies the spirit of public participation are newspaper ads not only in the local paper, but in newspapers around the state. Radio announcements were made not only at the prescribed time but just before the public

meetings to serve as a reminder. Furthermore, the Permittees held two public meetings in both Carlsbad and Santa Fe, New Mexico. Throughout the process, the Permittees held informal meetings with stakeholders and provided the stakeholders copies of the progressive drafts of the Renewal Application in both hard copy and electronic format. Because of WIPP Project's longstanding policy of public involvement in the permitting process, a member of one of the environmental special interest groups called WIPP the "gold standard of public participation."

## **OBJECTIVES**

Aside from having a new permit issued for the WIPP facility permitted activities, a very important step in the process is receiving a determination from the regulator that the Renewal Application is administratively complete. The regulations state that renewal applications must be "timely and complete." The WIPP met the timeliness standard by submitting their Renewal Application before due date of May 30, 2009 (i.e., 180-day prior to permit expiration date of November 26, 2009). The completeness standard is subjective and based upon the NMED determination that the application forms and any supplemental information are completed satisfactorily.

Because of minimal scope changes proposed and the extensive public participation process the WIPP Project employs in all regulatory related matters, it is possible that a permit can be issued without a public hearing. Public hearings are not mandatory. If the regulator, the Permittees, or a member of the public requests a public hearing, the regulator determines the appropriateness of a public hearing. Indeed, the WIPP project has been issued a Class 3 permit modification for additional disposal units without a public hearing being requested or held. Again, the scope of the change was well understood and thoroughly discussed with the stakeholders.

Even if a public hearing is requested, many issues can be removed from the adjudication process through negotiations with the NMED and stakeholders prior to any public hearing. Negotiating was a valuable process used by the NMED, Permittees, and stakeholders to come to a mutually agreeable position on many issues in a previous Class 3 permit modification. During the negotiations, permit issues were removed from the scope of the hearing and stipulated verbiage is agreed upon.

## **SCOPE OF PROPOSED RENEWAL APPLICATION CHANGES**

The scope of the proposed Renewal Application changes is minimal. The Permittees have requested only the:

- Authorization to dispose of TRU mixed-waste in Panel 8
- Formal inclusion of the WIPP Mine Ventilation Rate Monitoring Plan

In the Renewal Application the Permittees are seeking authorization to dispose of TRU and TRU mixed-waste in Panel 8. On July 8, 2005, the NMED granted the Permittees a Class 3 permit modification, allowing the Permittees to construct and dispose of TRU mixed-waste in Panels 4 through 7. Previous panels were approved in the original WIPP Hazardous Waste Facility Permit. However, disposal of TRU mixed-waste was not permitted in Panel 8, only its

construction (i.e., mining and outfitting) was permitted in the 2005 modification. The request for authorization to dispose of TRU-mixed waste in Panel 8 is the only additional permitted activity being sought in the Renewal Application.

The Permittees also seek to include the *Waste Isolation Pilot Plant Mine Ventilation Rate Monitoring Plan* into the Permit. In May 2000, the Permittees submitted to the NMED the Mine Ventilation Rate Monitoring Plan as required by Module IV, Geologic Repository Disposal, Permit Condition IV.J., *Compliance Schedule*. Although not yet formally included in the WIPP Permit, the Permittees have been operating to the Mine Ventilation Rate Monitoring Plan since the time of the Plan's submittal.

When the Permittees submitted the Renewal Application on May 28, 2009, it contained many other proposed changes, primarily to the Permit's waste analysis plan. Many of the changes were to address inconsistencies and technical edits (i.e., typographical errors, editorial statements, and references locations). Other changes the Permittees included to clarify permit language they believed were ambiguous or confusing. Other changes addressed the interpretation of Permit requirements such as prohibited liquids and visual examination.

Though originally submitted to the NMED on May 28, 2009, the Permittees requested an extension to amend the Renewal Application on August 19, 2009. The Permittees and NMED received extensive public comments at and subsequent to the pre-application public meetings. The NMED staff also raised similar issues concerning the Renewal Application. The Permittees felt that the amended application will expedite NMED's review. While the Renewal Application only retained proposed changes for an additional disposal unit (Panel 8) and the mine ventilation rate monitoring plan, a condition of NMED's granting the Permittees' request for an extension to submit was to address the liquid prohibition and visual examination of prohibited item in a separate permit modification request.

#### **NEW INFORMATION SINCE THE FIRST PERMIT APPLICATION**

Renewal applicants are also required to include any new significant information that has been developed since their last permit application. The Permittees included such information it has developed since its first Part B application submitted to the NMED in 1997 [4] in the form of addenda to renewal application chapters. Three addenda to the Chapters were included in the Renewal Application. The addenda and the reasons for including them are as follows:

- Addendum B1, Dispute Resolution (This is a provision that is contained in Module I of the Permit, that the Permittees wish to retain in the renewed Permit)
- Addendum L1, Site Characterization (This updates information that appeared in Appendix D6 of the original application and is referenced extensively in Attachment L of the Permit, Groundwater Monitoring Program)
- Addendum N1, 300-year Performance Demonstration Re-Evaluation (This updates information that was used to prepare the original Permit. The original analysis and the updated information reach the same conclusion that the only significant pathway from the miscellaneous unit is the air pathway involving the release of volatile organic compounds from containers prior to final facility closure.)

## **AMENDING THE RENEWAL APPLICATION**

The Permittees met the regulatory requirement to submit the Renewal Application at least 180-days prior to the expiration date of the Permit. Two weeks prior to the public meeting presenting the WIPP's hazardous waste management activities to the public, specific stakeholders received a draft of the planned submittal of the Renewal Application. At the public meeting stakeholders and a member of the NMED asked many questions regarding some of the proposed changes. Written comments received subsequent to the meeting repeated those same questions. Written comments were included in the Renewal Application as required by the public participation regulations.

When the Permittees submitted the Renewal Application on May 28, 2009, it contained many other proposed changes, primarily to the Permit's waste analysis plan. Many of the changes were to address inconsistencies and technical edits (i.e., typographical errors, editorial statements, and references locations). Other changes the Permittees included to clarify permit language they felt ambiguous. Yet other changes were at the regulator's request to address the interpretation of prohibited liquids and visual examination for prohibited items.

Though originally submitted to the NMED on May 28, 2009, the Permittees requested an extension to amend the Renewal Application on August 19, 2009. The Permittees and NMED received extensive public comments at and subsequent to the pre-application public meetings. The NMED staff also raised similar issues concerning the Renewal Application. The Permittees believed that submittal of an amended Renewal Application would be the most expeditious and comprehensive manner of addressing those important issues by addressing those extensive comments prior to the actual detailed review and administrative process. Furthermore, the Permittees felt that the amended application will expedite NMED's review. While the Renewal Application only retained proposed changes for an additional disposal unit (Panel 8) and the mine ventilation rate monitoring plan, a condition of NMED's granting the Permittees' request was to address the liquid prohibition and visual examination of prohibited item in a separate permit modification request.

## **PATH FORWARD**

After receiving the NMED determination of administrative completeness, the Permittees are awaiting the NMED review of the Renewal Application technical merits. Either the Renewal Application contains the technical information the NMED believes is sufficient or the NMED will request the additional technical information by way of a Notice of Deficiency. Once the regulators have determined that they have all the technical information they need they will write and issue a draft permit. After the issuance of a draft permit, the NMED will establish a public comment period. There is no prescribed length of time for a public comment period, though a good planning basis is 60-days. Regardless of the length of the public comment period set forth by the regulator, in reality the public may comment till the end of the public hearing, per 20 NMAC 4.1.901.A.(6) . It is important to note that when a permit is renewed, all parts of the permit are opened for comment and change by either by the permittees, the regulator, or the public. Therefore, the regulator may include or remove permit terms and conditions in the draft. The public may comment on any aspect of the permit, even those addressed when issuing a prior permit.

When NMED receives comments on the draft permit from the public and from the Permittees, they will initiate a negotiation process to reach consensus on as many issues as possible. The groups at the negotiating table are the NMED, the Permittees (CBFO and Washington TRU Solutions) as well as any member of the public who in some way is in opposition to the draft permit and has requested a public hearing. When agreement is made on any issue or set of issues, all of the parties involved in the negotiations sign a paper that says that they stipulate to the agreed upon language with regard to the specified issues. Thus, the issues that are on the table at the public hearing are minimized.

As soon as someone requests a public hearing, the NMED will set a date and appoint a hearing officer. If, after the negotiation process, a public hearing is still needed written testimony is prepared and witnesses are identified. Oral technical testimony will be made and the other parties will have a chance to cross examine the witnesses. Non-technical testimony will be heard as well, however, there is no cross examination for non-technical testimony.

The hearing officer writes his or her recommendation to the Secretary of the NMED. Although the Secretary carefully considers the hearing officer findings and recommendations, the Secretary will make his own determination regarding the merits of the case presented and the final language of the permit terms and conditions. Additionally, the Secretary may decide to deny a permit.

Once a permit is issued by the Secretary of the NMED, it will become effective in 30-days. The 30-days allows for the Permittees to prepare for any permit requirements that might be included in the final permit for which they were not aware, and allows a period of time for the public to review the permit and, should they disagree in part or in whole with the permit, seek legal recourse.

## **CONCLUSION**

There is no real guidance for the permit renewal process. Application (and reapplication) completeness criteria and checklists would go a long way in reducing the subjectivity in an already overly subjective process. Guidance set forth by the Environmental Protection Agency would be a good way to achieve a common approach to the permit renewal process. But what can the permitted community do to streamline the renewal application process? The experience gained by the Waste Isolation Pilot Plant Project demonstrates what the regulated community can do in the absence of national and state guidance for renewal applications. Not only do open communications apply to RCRA permit renewals but is essential in all aspects of engaging the public and regulators in multimedia permitting challenges. The process of open communications early and often with stakeholders and regulators alike has proven to yield many benefits.



## REFERENCES

1. Waste Isolation Pilot Plant Hazardous Waste Facility Permit; permit number NM4890139088-TSDF
2. 40 CFR 270.10, *General application requirements*
3. 20.4.1.901NMAC, *Permitting Procedures*
4. Resource Conservation and Recovery Act Part B Permit Application, DOE/WIPP 91-005, Revision 6