

Underground Retorts
OMB Control Number: 1219-0096
OMB Expiration Date: 2/28/2025

**Supporting Statement for
Underground Retorts
Paperwork Reduction Act Submission**

This information collection request (ICR) seeks to extend, without change, a currently approved information collection.

OMB Control Number: 1219-0096

Information Collection Request Title: Underground Retorts

Type of OMB Review: Extension

Authority:

Part 57 - Safety and Health Standards - Underground Metal and Nonmetal Mines
Subpart T - Safety Standards for Methane in Metal and Nonmetal Mines
30 CFR 57.22401 - Underground retorts (I-A and I-B mines)

Collection Instrument(s): None

General Instructions

A Supporting Statement, including the text of the notice to the public required by 5 CFR 1320.5(a)(i)(iv) and its actual or estimated date of publication in the *Federal Register*, must accompany each request for approval of a collection of information. The Supporting Statement must be prepared in the format described below, and must contain the information specified in Section A below. If an item is not applicable, provide a brief explanation. When the question “Does this ICR contain surveys, censuses or employ statistical methods” is checked "Yes", Section B of the Supporting Statement must be completed. OMB reserves the right to require the submission of additional information with respect to any request for approval.

Specific Instructions

A. JUSTIFICATION

1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.

Section 103(h) of the Federal Mine Safety and Health Act of 1977, as amended (Mine Act), 30 U.S.C. 813(h), authorizes the Mine Safety and Health Administration (MSHA) to collect information necessary to carry out its duty in protecting the safety and health of miners. Further,

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section 101(a) of the Mine Act, 30 U.S.C. 811(a), authorizes the Secretary of Labor (Secretary) to develop, promulgate, and revise as may be appropriate, improved mandatory health or safety standards for the protection of life and prevention of injuries in coal, metal, and nonmetal mines.

In order to fulfill the statutory mandates to promote miners' health and safety, MSHA requires the collection of information associated with Underground Retorts. The information collection addressed by this notice is intended to ensure that combustible gases at underground oil shale mines are kept at acceptable levels and do not expose miners to explosive or other hazardous conditions.

Safety requirements for using a retort to extract oil from shale in underground metal and nonmetal I-A and I-B mines is specified in 30 CFR 57.22401 (mines that operate in a combustible ore and either liberate methane or have the potential to liberate methane based on the history of the mine or the geological area in which the mine is located). This applies only to underground oil shale mines. The standard requires that prior to ignition of underground retorts, mine operators must submit a written ignition operation plan to the appropriate MSHA District Manager. The ignition operation plan contains site-specific safeguards and safety procedures for the underground areas of the mine which are affected by the retorts.

Under 30 CFR 57.22401(b), an underground oil shale mine must submit to the MSHA District Manager a written ignition and operation plan prior to the ignition of underground retorts. Under 30 CFR 57.22401(b), the retort plans must include:

- (1) Acceptable levels of combustible gases and oxygen in retort off-gases during start-up and during burning; levels at which corrective action will be initiated; levels at which personnel will be removed from the retort areas, from the mine, and from endangered surface areas; and the conditions for reentering the mine;
- (2) Specifications and locations of off-gas monitoring procedures and equipment;
- (3) Specifications for construction of retort bulkheads and seals, and their locations;
- (4) Procedures for ignition of a retort and for reignition following a shutdown; and
- (5) Details of area monitoring and alarm systems for hazardous gases and actions to be taken to ensure safety of personnel.

2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.

Plans for operating retorts are required because the retort process involves the use of fire in an underground mine in which hazardous gases may be present. Retort plans are monitored by MSHA to ensure that combustible gases are kept at acceptable levels and do not expose miners to explosive or other hazardous conditions.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and

the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden.

No improved information technology has been identified that would reduce the existing burden. However, in order to comply with the Government Paperwork Elimination Act, mine operators may submit the plan to MSHA electronically and retain the records in whatever method they choose, which may include utilizing computer technology. These plans are generally submitted by regular mail because they usually have large maps, or other than standard size pages, which do not lend themselves to electronic transmission.

4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item A.2 above.

No similar or duplicate information is available or submitted to MSHA.

5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

The information collection provisions apply to all mine operations, both large and small. Congress intended that the Secretary enforce the law at all mining operations within the Agency's jurisdiction regardless of size and that information collection and recordkeeping requirements be consistent with efficient and effective enforcement of the Mine Act. [See Rep. No. 95-181, 28 (1977)]. Section 103(e) of the Mine Act, 30 U.S.C. 813(e), directs the Secretary not to impose an unreasonable burden on small businesses when obtaining any information under the Mine Act. MSHA considered the burden on small mines when developing the collection. Hence, MSHA believes that these information collection requirements are imposed on all mining operations and do not have a significant impact on a substantial number of small business or other small entities.

6. Describe the consequence to federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

For operators who use retorts, it is essential that a plan be submitted to MSHA so that the Agency can monitor the levels of hazardous gases and the use of retorts to ensure that miners are not being exposed to hazardous or explosive conditions.

7. Explain any special circumstances that would cause an information collection to be conducted in a manner:

- **Requiring respondents to report information to the agency more often than quarterly;**

- **Requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;**
- **Requiring respondents to submit more than an original and two copies of any document;**
- **Requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than three years;**
- **In connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;**
- **Requiring the use of statistical data classification that has not been reviewed and approved by OMB;**
- **That includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**
- **Requiring respondents to submit proprietary trade secret, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

This collection of information is consistent with the guidelines in 5 CFR 1320.5.

8. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.

Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every 3 years - even if the collection of information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.

In accordance with 5 CFR 1320.8(d), MSHA will publish the proposed information collection requirements in the *Federal Register*, notifying the public that these information collection requirements are being reviewed in accordance with the Paperwork Reduction Act of 1995, and provided 60 days for the public to submit comments. MSHA published a 60-day Federal Register notice on August 15, 2024 (89 FR 66453). MSHA received no comments.

9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.

MSHA does not provide payments or gifts to respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.

There is no assurance of confidentiality provided to respondents. However, in the event a mine operator should include proprietary data within a retort plan, such data will be kept confidential by MSHA consistent with the guidelines outlined in 5 U.S.C. 552(b)(4).

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

There are no questions of a sensitive nature.

12. Provide estimates of the hour burden of the collection of information. The statement should:

- **Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the variance. Generally, estimates should not include burden hours for customary and usual business practices.**
- **If this request for approval covers more than one form, provide separate hour burden estimates for each form.**
- **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories.**

The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included in Item 13.

Respondents

All information related to quantities and inspection rates are estimated by MSHA's Headquarters Enforcement Division based on field experience with different types of mining operations, sizes of mines, and the frequency of inspections dictated by statute. Mine operators provide MSHA Headquarters Enforcement Division the number of mines and employment, and from this information MSHA tracks the number of active and inactive mines and mine types throughout the United States.

Based on MSHA's internal data, there were no active underground oil shale mines in calendar year 2023. To account for possible future information collection activity, MSHA assumes that, on average, there is 1 underground oil shale mine affected by this information collection request.

Wage Rates Determinations¹

MSHA used data from the May 2023 Occupational Employment and Wage Statistics (OEWS) published by the Bureau of Labor Statistics (BLS) for hourly wage rates² and adjusted the rates for benefits,³ wage inflation,⁴ and overhead costs.⁵ The occupations listed below in Table 12-1 are those that were determined to be relevant for the cost calculations.

1 For all wage rates, including Federal wage rates, MSHA uses the relevant precision throughout the calculation to avoid compound rounding errors and rounds at the final rate value. Displayed intermediate calculation values are presented to explain the calculation and are representative, but the final rate value reflects the correct rounding and final estimate.

2 To obtain OEWS data, follow BLS's directions in its Frequently Asked Questions: "E. How to get OEWS data. 4. What are the different ways to obtain OEWS estimates from this website?" at https://www.bls.gov/oes/oes_ques.htm. The average wage rate is calculated as the employment-weighted average of hourly mean wages for the occupation.

3 The benefit multiplier comes from BLS Employer Costs for Employee Compensation accessed by menu at <http://data.bls.gov/cgi-bin/srgate> or directly at <http://download.bls.gov/pub/time.series/cm/cm.data.0.Current>. Insert the data series CMU2030000405000D and CMU2030000405000P, Private Industry Total benefits for Construction, extraction, farming, fishing, and forestry occupations, which is divided by 100 to convert to a decimal value. MSHA uses the latest 4-quarter moving average to determine what percent of total loaded wages are benefits. MSHA computes the benefit multiplier with a number of detailed calculations, but it may be approximated with the formula $1 + (\text{benefit percentage}/(1-\text{benefit percentage}))$.

4 Wage inflation is the change in Series ID: CIS2020000405000I; Seasonally adjusted; Series Title: Wages and salaries for Private industry workers in Construction, extraction, farming, fishing, and forestry occupations, Index. (<https://data.bls.gov/cgi-bin/srgate> ; Inflation Multiplier = (Current Quarter Cost Index Value / OEWS Wage Base Quarter Index Value).

5 MSHA uses an overhead rate of 1 percent. The mining environment generally involves very little overhead, especially costs associated with workers engaged in administrative or clerical tasks.

Table 12-1. Hourly Wage Rates

Occupation	NAICS Code	Average Wage Rate	Benefit Multiplier	Inflation Multiplier	Overhead Cost Multiplier	Loaded Hourly Wage Rate
		A	B	C	D	A x B x C x D
Mine Supervisor [a]	212200 212300	\$41.81	1.470	1.018	1.01	\$63.19

Notes: MSHA uses the latest 4-quarter moving average 2023Q1-2023Q4 to determine that 32.0 percent of total loaded wages are benefits for private industry workers in construction, extraction, farming, fishing, and forestry occupations. The benefit multiplier is $1.470 = 1 + (0.320 / (1 - 0.320))$. The inflation multiplier is determined by using the employment price index from the most current quarter, 2023Q4, divided by the base year and quarter of the OEWS employment and wage statistics, 2023Q2, for private industry workers in construction, extraction, farming, fishing, and forestry occupations, current dollar index. The inflation multiplier is $1.018 = 160.1 / 157.3$. MSHA used the overhead multiplier of 1.01.

[a] The Standard Occupation Codes (SOC) used for this occupation are (47-1011), (49-1011), (51-1011), and (53-1047).

Hour Burden

Under 30 CFR 57.22401(b), an underground oil shale mine must submit to the MSHA District Manager a written retort ignition and operation plan. MSHA estimates that on average it would receive one retort plan per year, and that it would take a metal and nonmetal underground mine supervisor earning \$63.19 per hour, approximately 160 hours to prepare the plan. The burden cost associated with the operator's duty to submit the required plan is as follows:

Table 12-2. Estimated Annual Respondent Hour and Cost Burden, Underground retorts (I-A and I-B mines) (30 CFR 57.22401(b))

Activity (Occupation)	No. of Respondents (Affected MNM Mines)	No. of Responses per Respondent	No. of Responses (Plans)	Average Burden (Hours)	Total Burden (Hours)	Hourly Wage Rate	Total Burden Cost
Retort plans (Mine Supervisor)	1	1	1	160.00	160.00	\$63.19	\$10,109.82
Subtotal (Rounded)	1		1		160		\$10,110

Hour Burden Summary

The annual respondent hour and cost burden is summarized in Table 12-3.

Table 12-3. Estimated Annual Respondent Hour and Cost Burden, Summary Totals

Activity (Occupation)	No. of Respondents	No. of Responses per Respondent	No. of Responses	Average Burden (Hours)	Total Burden (Hours)	Hourly Wage Rate	Total Burden Cost
Retort plans (Mine Supervisor)	1	1	1	160.00	160.00	\$63.19	\$10,109.82
Total	1		1		160		\$10,110

<i>(Rounded)</i>						
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13. Provide an estimate of the total annual cost burden to respondents or recordkeepers resulting from the collection of information. (Do not include the cost of any hour burden shown in Items 12 and 14).

- **The cost estimate should be split into two components: (a) a total capital and start up cost component (annualized over its expected useful life); and (b) a total operation and maintenance and purchase of service component. The estimates should take into account costs associated with generating, maintaining, and disclosing or providing the information. Include descriptions of methods used to estimate major cost factors including system and technology acquisition, expected useful life of capital equipment, the discount rate(s), and the time period over which costs will be incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling and testing equipment; and record storage facilities.**
- **If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collection services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondents (fewer than 10), utilize the 60-day pre-OMB submission public comment process and use existing economic or regulatory impact analysis associated with the rulemaking containing the information collection, as appropriate.**
- **Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the government, or (4) as part of customary and usual business or private practices.**

There are no capital or maintenance costs to respondents or recordkeepers resulting from the collection of this information.

14. Provide estimates of annualized costs to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information. Agencies may also aggregate cost estimates from Items 12, 13, and 14 in a single table.

Table 14-1. Federal Hourly Wage Rates

Occupation	Occupation Code	Average Wage Rate	Benefit and Overhead Multiplier [a]	Loaded Hourly Wage Rate
		A	B	A x B
GS-12 Inspector [b]	1822	\$47.55	1.586	\$75.41

Note: Hourly wage rates developed from Office of Personnel Management (OPM) September 2023 FedScope Employment Cube, <http://www.fedscope.opm.gov/>.

[a] Benefit and overhead multiplier = 1 + (MSHA personnel benefits, travel and transportation, and rental expenses divided by MSHA personnel compensation) = (1 + ((76,679+20+5,309+5,932+17,577+71) / 180,071) (FY 2024 budget submission, use FY2023 Revised Enacted Budget: <https://www.dol.gov/sites/dolgov/files/general/budget/2024/CBJ-2024-V2-13.pdf>).

[b] Data search qualifiers were: Agency = DLMS, Occupation = 1822 (Mine Safety and Health Inspection), Work Schedule = Full-Time, Salary Grade = GS-12, Measure = Average Salary. The hourly wage is the annual salary divided by 2,087. In order to include the cost of benefits and overhead, MSHA multiplied the average annual salary by a federal benefit and overhead multiplier for MSHA of 1.586. Rate equals \$75.41 = (\$99,228 / 2,087 x 1.586).

MSHA estimates that it would receive one retort plan per year, and that on average it would take an MSHA inspector approximately 160 hours to review the plan for approval. The average salary of an MSHA inspector, GS 12 grade, is \$75.41 per hour (including benefits and overhead).

Table 14-2. Estimated Annual Federal Hour and Cost Burden, Plan Approval (30 CFR 57.22401(b))

Activity (Occupation)	No. of Responses (Plans)	Average Burden (Hours)	Total Burden (Hours)	Hourly Wage Rate	Total Burden Cost
Plan approval (GS-12 Inspector)	1	160.00	160.00	\$75.41	\$12,065.24
Total (Rounded)	1		160		\$12,095

15. Explain the reasons for any program changes or adjustments.

Respondents: The estimated annual number of respondents remained unchanged at 1.

Responses: The estimated annual number of responses remains unchanged at 1.

Time Burden: The estimated annual time burden remains unchanged at 160 hours.

Burden Costs: The estimated annual burden costs increased from \$8,802 to \$10,110 due to an increase in wages.

Other Burden Costs: The estimated annual other burden costs remained unchanged at \$0.

Federal Hours: The estimated annual federal hours remain changed at 160.

Federal Costs: The estimated annual federal costs increased from \$9,854 to \$12,095 due an increase in federal wages and benefit and overhead.

Table 15-1. Summary of Changes

	Previous ICR	Current ICR	Difference
Number of Respondents	1	1	0
Number of Responses	1	1	0
Annual Time Burden	160	160	0
Annual Burden Costs	\$8,802	\$10,110	\$1,308
Annual Other Burden Costs	\$0	\$0	\$0
Federal Hours	160	160	0
Federal Costs	\$9,854	\$12,095	\$2,241

16. For collections of information whose results will be published, outline plans for tabulation and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.

There are no outline plans for tabulation and publication of data for this information collection.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

MSHA associates no forms with this information collection.

18. Explain each exception to the topics of the certification statement identified in "Certification for Paperwork Reduction Act Submissions."

There are no certification exceptions identified with this information collection.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

This information collection does not employ statistical methods.