

Supporting Statement  
Underground Retorts

<u>OMB Control</u>	<u>30 CFR Citation</u>	<u>Title</u>
1219-0096	§ 57.22401(b)	Underground Retorts (I-A and I-B mines)

## 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 (Mine Act), 30 U.S.C. § 813, authorizes MSHA to collect information necessary to carry out its duty in protecting the safety and health of miners. Title 30 CFR 57.22401 sets forth the safety requirements for using a retort to extract oil from shale in underground metal and nonmetal I-A and I-B mines (those 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). At present, 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 Mine Safety and Health Administration (MSHA) District Manager which contains site-specific safeguards and safety procedures for the underground areas of the mine which are affected by the retorts. 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) Specification 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 assure 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. Approved retort

plans are monitored by MSHA to ensure that combustible gases are kept at acceptable levels and do not expose the 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 burden; however, 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 also include utilizing computer technology. These plans are generally submitted by regular mail – 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 2 above.**

MSHA knows of no other federal, state, or local agency that has a similar paperwork requirement relating to the use of retorts that would duplicate this requirement.

**5. If the collection of information impacts small businesses or other small entities (Item 5 of OMB Form 83-I), describe any methods used to minimize burden.**

Section 103(e) of the Mine Act directs the Secretary of Labor not to impose an unreasonable burden on small businesses in obtaining any information under the Mine Act. Accordingly, the Agency takes this into consideration when developing regulatory requirements, and when appropriate and consistent with ensuring the safety and health of the nation's miners, different requirements for small and large operations exist. In MSHA's opinion, however, the use of retorts underground will be limited to large oil shale mines, and that small mines employing less than 20 miners, by virtue of their limited size and mining methods, will not construct or operate retorts underground. This information collection does not have a significant economic impact on small businesses 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.**

MSHA records show that only a few mines use the retort process, and no oil shale mines are currently active. Because so few operators use retorts, there may be some years in which no new retort plans are submitted at all. For those operators who do use retorts, it is essential that a plan be submitted to MSHA so that MSHA can monitor the

levels of hazardous gases and the use of the retort 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 a 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 secrets, 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.**

MSHA published a 60-day *Federal Register* notice on April 27, 2012 (77 FR 25206). No comments were received.

**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 identified by this collection.

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

No records requiring confidentiality are required. 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 and aggregate the hour burdens in Item 13 of OMB Form 83-I.**

**\* 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.**

It is estimated that MSHA would receive only one plan per year, and that it would take a

metal and nonmetal underground mine supervisor earning \$66.98 per hour, approximately 160 hours to prepare the plan (salary figures from U.S. Metal and Industrial Mineral Mine Wages, & Benefits - Survey Results, 2010). The burden cost associated with the operator's duty to submit the required plan is as follows:

**Burden Hours:**

160 hours x 1 plan per year = 160 hours

**Hour Burden Costs:**

160 hours x \$ 66.98 per hour = \$10,717

**13. Provide an estimate for 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 services 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 collections 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.**

MSHA does not anticipate that there will be any costs associated with this information collection other than those designated under Item 12 above.

**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.**

It is estimated that MSHA would receive only one plan per year, and that 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 \$61.32 per hour ( including benefits).

The burden cost associated with the MSHA district manager's approval process is as follows:

1 plan x 160 hours x \$ 61.32 per hour (salary of a GS 12 inspector) = \$9,811

**15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB Form 83-I.**

There are no changes or adjustments to this collection.

**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 plans for publication or statistical use of the results of 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.**

There are no forms on which to display the expiration date.

**18. Explain each exception to the certification statement identified in Item 19, "Certification for Paperwork Reduction Act Submissions," of OMB Form 83-I.**

There are no certification exceptions identified with this information collection.

## **B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS**

**1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection methods to be used. Data on the number of entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved during the last collection.**

**2. Describe the procedures for the collection of information including:**

- \* Statistical methodology for stratification and sample selection,**
- \* Estimation procedure,**
- \* Degree of accuracy needed for the purpose described in the justification,**
- \* Unusual problems requiring specialized sampling procedures, and**
- \* Any use of periodic (less frequent than annual) data collection cycles to reduce burden.**

**3. Describe methods to maximize response rates and to deal with issues of non-response. The accuracy and reliability of information collected must be shown to be adequate for intended uses. For collections based on sampling, a special justification must be provided for any collection that will not yield "reliable" data that can be generalized to the universe studied.**

**4. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to identical questions from 10 or more respondents. A proposed test or set of test may be submitted for approval separately or in combination with the main collection of information.**

**5. Provide the name and telephone number of individuals consulted on statistical aspects of the design and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.**

As statistical analysis is not required by the regulation, questions 1 through 5 do not apply.

**Federal Mine Safety & Health Act of 1977,  
Public Law 91-173,  
as amended by Public Law 95-164  
An Act**

**INSPECTIONS, INVESTIGATIONS, AND RECORDKEEPING**

Section 103 (h) In addition to such records as are specifically required by this Act, every operator of a coal or other mine shall establish and maintain such records, make such reports, and provide such information, as the Secretary or the Secretary of Health, Education, and Welfare may reasonably require from time to time to enable him to perform his functions under this Act. The Secretary or the Secretary of Health, Education, and Welfare is authorized to compile, analyze, and publish, either in summary or detailed form, such reports or information so obtained. Except to the extent otherwise specifically provided by this Act, all records, information, reports, findings, citations, notices, orders, or decisions required or issued pursuant to or under this Act may be published from time to time, may be released to any interested person, and shall be made available for public inspection.



**Part 57 – Safety and Health Standards – Underground Metal and Nonmetal Mines  
30 CFR Subpart T– Safety Standards for Methane in Metal and Nonmetal Mines  
Underground Retorts**

§ 57.22401 Underground Retorts (I-A and I-B mines).

(a) Retorts shall be provided with--

(1) Two independent power sources for main mine ventilation fans and those fans directly ventilating retort bulkheads, and for retort blowers, and provisions for switching promptly from one power source to the other; and

(2) An alarm system for blower malfunctions and an evacuation plan to assure safety of personnel in the event of a failure.

(b) Prior to the ignition of underground retorts, a written ignition and operation plan shall be submitted to the MSHA District Manager for the area in which the mine is located. The mine operator shall comply with all provisions of the retort plan. The retort plan shall 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) Specification 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 assure safety of personnel.