

**SUPPORTING STATEMENT FOR THE
INFORMATION COLLECTION REQUIREMENTS OF THE
STANDARD ON THE STORAGE AND HANDLING
OF ANHYDROUS AMMONIA (29 CFR 1910.111)¹
OFFICE OF MANAGEMENT AND BUDGET
(OMB) CONTROL NO. 1218-0208**

The agency is requesting a revision of a currently approved data collection.

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.

The main purpose of the Occupational Safety and Health Act (OSH Act) is to “assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources” (29 U.S.C. 651). To achieve this objective, the OSH Act specifically authorizes “the development and promulgation of occupational safety and health standards” (29 U.S.C. 651). In addition, the OSH Act specifies that “[e]ach employer shall make, keep and preserve, and make available to the Secretary . . . such records . . . as the Secretary . . . may prescribe by regulation as necessary or appropriate for the enforcement of this Act . . .” (29 U.S.C. 657).

Section 6(b)(7) of the Act specifies that [a]ny standard promulgated under this subsection shall prescribe the use of labels or other appropriate forms of warning as are necessary to ensure that workers are apprised of all hazards to which they are exposed, relevant symptoms and appropriate emergency treatment, and proper conditions and precautions of safe use or exposure. This provision goes on to state that “[t]he Secretary, in consultation with the Secretary of Health and Human Services, may by rule promulgated pursuant to section 553 of title 5, United States Code, make appropriate modifications in the foregoing requirements relating to the use of labels or other forms of warning . . . as may be warranted by experience, information, or medical or technological developments acquired subsequent to the promulgation of the relevant standard” (29 U.S.C. 655).

Under the authority granted by the OSH Act, the Occupational Safety and Health Administration (“OSHA” or “the agency”) published the Anhydrous Ammonia Standard (the “Standard”; 29 CFR 1910.111). Paragraphs (b)(3) and (b)(4) of the Standard have paperwork requirements that apply to non-refrigerated containers and systems, and refrigerated containers, respectively; employers use these containers and systems to store and transfer anhydrous ammonia in the workplace.

¹The purpose of this Supporting Statement is to analyze and describe the burden hours and costs associated with provisions of this standard that contain paperwork requirements; this Supporting Statement does not provide information or guidance on how to comply with, or how to enforce, the standard.

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.

The following paragraphs identify the paperwork requirements contained in the Standard. The estimated burden hours and costs determinations are discussed under Item 12.

§1910.111 (b)(1)(iv)

(iv) It is a custom-designed and custom-built unit, which no nationally recognized testing laboratory, or Federal, State, municipal or local authority responsible for the enforcement of a Federal, State, municipal, or local law, code or regulation pertaining to the storage, transportation and use of anhydrous ammonia is willing to undertake to accept, certify, list, label or determine to be safe, and the employer has on file a document attesting to its safe condition following the conduct of appropriate tests. The document shall be signed by a registered professional engineer or other person having special training or experience sufficient to permit him to form an opinion as to safety of the unit involved. The document shall set forth the test bases, test data and results, and also the qualifications of the certifying person.

Purpose: Where equipment is custom-designed and built unit and there are no nationally recognized testing laboratory, or Federal, State, municipal or local authority responsible for the enforcement of a Federal, State, municipal, or local law, code or regulation pertaining to the storage, transportation and use of anhydrous ammonia, the equipment must be documented and tested and registered professional engineer or a person that have the skills and knowledge of the customized equipment. The qualified person must sign-off on the equipment to deem that it is safe for use. This documentation must be maintained by the employer and therefore, this is a burden.

§1910.111 (b)(3)

(3) *Marking nonrefrigerated containers.*

(i) System nameplates, when required, shall be permanently attached to the system so as to be readily accessible for inspection and shall include markings as prescribed in subdivision (ii) of this subparagraph.

(ii) Each container or system covered in [paragraphs \(c\), \(f\), \(g\), and \(h\)](#) of this section shall be marked as specified in the following:

(a) With a notation “Anhydrous Ammonia.”

(b) With a marking identifying compliance with the rules of the Code under which the container is constructed.

Under ground: Container and system nameplate.

Above ground: Container.

(c) With a notation whether the system is designed for underground or aboveground installation or both.

(d) With the name and address of the supplier of the system or the trade name of the system and with the date of fabrication.

Under ground and above ground: System nameplate.

(e) With the water capacity of the container in pounds at 60 °F. or gallons, U.S. Standard.

Under ground: Container and system nameplate.

Above ground: Container.

(f) With the design pressure in pounds per square inch.

Under ground: Container and system nameplate.

Above ground: Container.

(g) With the wall thickness of the shell and heads.

Under ground: Container and system nameplate.

Above ground: Container.

(h) With marking indicating the maximum level to which the container may be filled with liquid anhydrous ammonia at temperatures between 20 °F. and 130 °F. except on containers provided with fixed level indicators, such as fixed length dip tubes, or containers that are filled with weight. Markings shall be in increments of not more than 20 °F.

Above ground and underground: System nameplate or on liquid-level gaging device.

(i) With the total outside surface area of the container in square feet.

Under ground: System nameplate.

Above ground: No requirement.

(j) Marking specified on the container shall be on the container itself or on a nameplate permanently attached to it.

§1910.111 (b)(4)

(4) **Marking refrigerated containers.** Each refrigerated container shall be marked with nameplate on the outer covering in an accessible place as specified in the following:

- (i) With the notation, “Anhydrous Ammonia.”
- (ii) With the name and address of the builder and the date of fabrication.
- (iii) With the water capacity of the container in gallons, U.S. Standard.
- (iv) With the design pressure.
- (v) With the minimum temperature in degrees Fahrenheit for which the container was designed.
- (vi) The maximum allowable water level to which the container may be filled for test purposes.
- (vii) With the density of the product in pounds per cubic foot for which the container was designed.
- (viii) With the maximum level to which the container may be filled with liquid anhydrous ammonia.

Purpose: The required markings ensure that employers use only properly designed and tested containers and systems to store anhydrous ammonia, thereby, preventing accidental release of, and exposure of workers to, this highly toxic and corrosive substance. Therefore, these requirements (b)(3) and (b)(4) impose a burden on the employer.

§1910.111 (b)(8)(v)

(v) On all hose one-half inch outside diameter and larger, used for the transfer of anhydrous ammonia liquid or vapor, there shall be etched, cast, or impressed at 5-foot intervals the following information.

“Anhydrous Ammonia” xxx p.s.i.g. (maximum working pressure), manufacturer's name or trademark, year of manufacture.

In lieu of this requirement the same information may be contained on a nameplate permanently attached to the hose.

Purpose: These marking requirements provide safe work practices when working in and around these chemicals. OSHA is taking a zero burden for this requirement because the manufacturer is providing the language on the nameplate.

§1910.111 (b)(9)(vii)

(vii) Each container safety-relief valve used with systems covered by [paragraphs \(c\), \(f\), \(g\), and \(h\)](#) of this section shall be plainly and permanently marked with the symbol “NH₃” or “AA”; with the pressure in pounds-per-square-inch gage at which the valve is set to start-to-discharge; with the actual rate of discharge of the valve at its full open position in cubic feet per minute of air at 60 °F. and atmospheric pressure; and with the manufacturer's name and catalog number. Example: “NH₃ 250–4050 Air” indicates that the valve is suitable for use on an anhydrous ammonia container, is set to start-to-discharge at a pressure of 250 p.s.i.g., and that its rate of discharge at full open position (subdivisions (ii) and (iii) of this subparagraph) is 4,050 cubic feet per minute of air.

Purpose: The required markings ensure that employers use only properly designed and tested containers and systems to store anhydrous ammonia, thereby, preventing accidental release of, and exposure of workers to, this highly toxic and corrosive substance. The burden for these markings are taken under paragraphs (b)(3) and (b)(4).

§1910.111 (b)(13)(iii)

(iii) Caution signs shall be so placed on the track or car as to give necessary warning to persons approaching the car from open end or ends of siding and shall be left up until after the car is unloaded and disconnected from discharge connections. Signs shall be of metal or other suitable material, at least 12 by 15 inches in size and bear the words “STOP—Tank Car Connected” or “STOP—Men at Work” the word, “STOP,” being in letters at least 4 inches high and the other words in letters at least 2 inches high.

§1910.111 (f)(6)(iv)

(iv) Valve functions shall be clearly and legibly identified by metal tags or nameplates permanently affixed to each valve.

§1910.111 (g)(5)

(5) **Marking the container.** There shall appear on each side and on the rear end of the container in letters at least 4 inches high, the words, “Caution—Ammonia” or the container shall be marked in accordance with DOT regulations.

Purpose: These marking requirements provide safe work practices when working in and around these chemicals. OSHA is taking a zero burden under paragraphs (b)(13)(iii), (f)(6)(iv), and (g) (5) because the language is provided on the nameplate and/or containers.

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.

Employers may use any available technology to provide the required information.

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.

The information collection requirements in the Standard are specific to each employer involved and no other source or agency duplicates these requirements or can make the required information available to OSHA (i.e., the required information is available only from employers).

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

The information collection requirements specified by the Standard do not have a significant impact on a substantial number of 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.

Employers need to collect the required information only if it becomes unreadable because of equipment damage or use, or because it no longer represents the operational characteristics of the equipment. Any reduction in frequency would eliminate the requirements entirely.

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 prove that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

No special circumstances exist that require employers to collect information using the procedures specified by this item. The requirements are within the guidelines set forth 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 before submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to those comments. Specifically, address comments received on cost and hour burdens.

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, revealed, 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 three years -- even if the collection of information activity is the same as in prior periods. There may be circumstances that mitigate against consultation in a specific situation. These circumstances should be explained.

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 506(c)(2)(A)), OSHA published a notice in the Federal Register October 10, 2023 (88 FR 73877) soliciting comments on its proposal to extend the Office of Management and Budget's (OMB) approval of the information collection requirements specified in the Storage and Handling of Anhydrous Ammonia Standard under Docket No. OSHA-2010-0050. This notice was part of a preclearance consultation program that provides interested parties the opportunity to comment on OSHA's

request for an extension by OMB of a previous approval of the information collection requirements found in the above Standard. The agency did not receive any public comments submitted in response to this notice.

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

The Agency will not provide payments or gifts to the respondents.

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

The paperwork requirements specified by the Standard do not involve confidential information.

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 reason 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.

The paperwork requirements specified by the Standard do not involve sensitive information.

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.**
- **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage-rate categories.**

Burden-Hour and Cost Determination

The agency determined the wage rate from mean hourly wage earnings to represent the cost of employee time. The following hourly wage rates for the relevant occupational categories have

been derived from the *National Occupational Employment and Wage Estimates United States, May 2022*, published by the Bureau of Labor Statistics. For the relevant standard occupational classification category, OSHA used the wage rates reported in the Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Employment and Wage Statistics (OEWS), May 2022* [date accessed: June 5, 2023]. (OEWS data is available at <https://www.bls.gov/oes/tables.htm>. To access a wage rate, select the year, "Occupation Profiles," and the Standard Occupational Classification (SOC) code.)

To account for fringe benefits, the Agency used the Bureau of Labor Statistics' (BLS) December 2022 National Compensation Survey. Fringe markup is from the following BLS release: *Employer Costs for Compensation* news release text released 10:00 AM (EDT), (<https://www.bls.gov/news.release/pdf/ecec.pdf>). [date accessed: June 5, 2023].

BLS reported that for civilian workers, fringe benefits accounted for 31 percent of total compensation and wages accounted for the remaining 69 percent. To calculate the loaded hourly wage for each occupation, the Agency divided the mean hourly wage by 1 minus the fringe benefits.

Table 1 -- WAGE HOUR ESTIMATES				
Occupational Title	Standard Occupation Code (SOC)	Mean Hour Wage Rate (A)	Fringe Benefits (B)	Loaded Hourly Wage Rate (C)=(A)/1-(B)
Manufacturing Worker (Production Occupation)	51-0000	\$21.81	0.31	\$31.61
Professional Engineer	17-0000	\$45.52	0.31	\$65.97

1. Approval of Equipment Systems

§1910.111(b)(1)(iv).

It is a custom-designed and custom-built unit, which no nationally recognized testing laboratory, or Federal, State, municipal or local authority responsible for the enforcement of a Federal, State, municipal, or local law, code or regulation pertaining to the storage, transportation and use of anhydrous ammonia is willing to undertake to accept, certify, list, label or determine to be safe, and the employer has on file a document attesting to its safe condition following the conduct of appropriate tests. The document shall be signed by a registered professional engineer or other person with special training or experience sufficient to permit him to form an opinion on the safety of the unit involved. The document shall set forth the test bases, test data and results, and also the qualifications of the certifying person. This documentation must be maintained by the employer.

OSHA estimates that it will take 5 minutes of registered professional engineer or other person having special training or experience sufficient to permit him to form an opinion as to safety of the unit involved. The document shall set forth the test bases, test data and results, and also the qualifications of the certifying person. Also, the agency estimates that there are 2,500 employers² and that 0.005 percent of employers will need to maintain documentation of equipment that is a custom-designed and custom-built unit.

Burden hours: 2,500 employers x 0.005 x 5/60 = 1 hour

Cost: 1 hour x 65.97 = \$66 (rounded)

2. Marking of Equipment.

§1910.111(b)(3)&(4).

The agency estimates that there are approximately 201,300 refrigerated and non-refrigerated anhydrous ammonia containers covered by the Standard. In the previous ICR package, OSHA had discussions with a representative of the Fertilizer Institute (a leading manufacturer of this equipment) informed the agency that employers place about 1,100 units into service each year, and that manufacturers and suppliers of this equipment provide the markings required by paragraphs (b)(3) and (b)(4) of the Standard. Accordingly, during the three-year period covered by this Supporting Statement, employers would place about (3,300 = 1,100 x 3) new containers into service, for a total of 204,600 containers. OSHA notes that the 204,600 estimate is likely an overestimate since it does not take into account tanks going out of service.

While manufacturers and suppliers of this equipment provide the markings initially, employers must subsequently replace or revise some of these markings because they become unreadable due to equipment damage or use, or because they no longer represent the operational characteristics of the equipment. OSHA believes it very unlikely that new tanks would need to have replacement markings since the “new” tanks have the markings securely affixed. In this regard, OSHA assumes no burden for the 3,300 new tanks; however, the Agency estimates that each year employers will replace or revise 1 percent of the markings on the current 204,600 anhydrous ammonia containers or systems and that it will take a manufacturing worker, at a wage rate of \$31.61 an hour, 10 minutes (10/60 hours) to perform this task on each container or system.

The estimated burden hours and cost associated with this provision are:

Burden hours: 204,600 containers x .01 x 10/60 hours = 341 hours

Cost: 341 hours x \$31.61= \$10,779 (rounded)

The following table summarizes the burden hours and costs associated with each provision of the Standard that contains a collection of information:

² Source: ERG 1985 Final Report entitled “Support Analysis for Economic Impact Study of the Final Rule on Equipment Testing or Certification” as referenced in (53 FR 12118).

TABLE 2—ESTIMATED ANNUALIZED RESPONDENT BURDEN HOURS AND COST TABLE*

Information Collection Requirement	Type of Respondent	No. of Respondents	No. of Responses per Respondent	Total No. of Responses	Burden per Response (In Hrs.)	Total Burden Hours (rounded)	Loaded Hourly Wage Rate	Total Burden Costs (rounded)
1. Approval of Equipment Systems	Professional Engineer	2,500	0.005	13	5/60	1	65.97	\$66
2. Marking of Equipment	Manufacturer Worker	204,600	0.01	2,046	10/60	341	\$31.61	\$10,779
Total		2,500*		2,059		342		\$10,845

*=The total number of non-cumulative respondents is 2,500.

13. Provide an estimate of the total annual cost burden to respondents or record-keepers resulting from the collection of information. (Do not include the cost of any hour burden shown in Items 12 and 14.)

There are no additional costs to the respondents other than their time.

14. Provide estimates of annualized cost 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 also may aggregate cost estimates from Items 12, 13, and 14 in a single table.

There is no cost to the Federal Government.

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

Upon further review, the agency determined that the documentation to certify custom-made and custom-built units by a registered professional engineer or other person having special training or experience is a collection of information. Therefore, OSHA is requesting a program change of one burden hour and an adjustment of 5 burden hours (from 336 hours to 342 hours), a total difference of 6 burden hours.

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 information, completion of report, publication dates, and other actions.

OSHA will not publish the information collected under 29 CFR 1910.111.

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.

OSHA lists current valid control numbers in §§1910.8, 1915.8, 1917.4, 1918.4, and 1926.5 and publishes the expiration date in the Federal Register notice announcing OMB approval of the information collection requirements. (See 5 CFR 1320.3(f)(3).) OSHA believes that this is the most appropriate and accurate mechanism to inform interested parties of these expiration dates.

18. Explain each exception to the certification statement.

OSHA is not requesting an exception to the certification statement.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

This Supporting Statement does not contain any collection of information requirements that employ statistical methods.