



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

*This was  
faxed on  
6/6/90*

Reply to:  
1050 East Flamingo Road  
Suite 319  
Las Vegas, Nevada 89119  
Tel: (702) 388-6125  
FTS: 598-6125

TO: John J. Linehan, Director, HLPD, Division of High-Level  
Waste Management, M/S 4 H 3

FROM: Paul T. Prestholt, Sr. On-Site Licensing Representative  
*PTP*

DATE: June 6, 1990

SUBJECT: NEVADA STATE AIR QUALITY REGULATIONS CONCERNING  
INTERNAL COMBUSTION ENGINES WITH 500 OR GREATER  
HORSEPOWER

Last week I reported that Uel Clanton, DOE-YMPO told me that the LM-300 drilling rig that is being built for the project would need air quality permits because it is powered by two 600 HP engines. The inference was that this may be a new regulation aimed specifically at the LM-300 rig.

This does not seem to be the case. The change in regulation became effective on December 8, 1989 and was reported to air quality permit holders on February 19, 1990.

The notice states that portable internal combustion engines of 500 HP or greater and stationary engines of 250 HP or greater require air quality permits. A note in the margin says, "nothing mobile".

In reading the notice and the regulation (attached) it seems to me that the language is open to interpretation as to whether the 600 HP engine used to power the hydraulic systems on the LM-300 would even be effected. Is it "mobile" or "portable"? It's really both. However, YMPO does, at this time, consider that the new regulation applies. It does not seem to me that it was put into effect to target the LM-300. DOE has many such engines on the Test Site and is working to obtain permits for all of them.

The February 19, 1990 "IMPORTANT NOTICE" from the State of Nevada (first page) is not a clear copy but is the "best available". The following is a "retype" of the most important paragraphs (#2 and #3).

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PDR WASTE PDC  
WM-11

FULL TEXT ASCII SCAN

*WM-11  
102  
NH03*

... "2. Portable internal combustion engines 500 horsepower or greater, and stationary internal combustion engines 250 horsepower or greater, now require Air Quality Permits. Nothing mobile.

*marginal note*

"3. Sources of air toxic emissions must now comply with the toxic air quality standards at the point of closest public access, instead of at the nearest residence or public campground. This will affect future permitting as well as renewal of operating permits."



## Department of Energy

Nevada Operations Office

P. O. Box 98518

Las Vegas, NV 89193-8518

JUN 01 1990

WBS 1.2.3

QA: N/A

Robert D. Kaiser, Chief, Operations Control Branch, Project and Operations Control Division, YMP, NV

### OPERATING PERMIT FOR THE LM-300

Enclosure 1 (letter, Pritchett to Dixon, dated April 5, 1990) indicates that an operating permit will be required for the LM-300 when used for drilling. It is not clear if the same permit is required to drive the rig on public highways in the State of Nevada.

Enclosure 2 lists the technical specifications for the rig. One of the 600 HP engines is used to power the carrier, the other powers the rig. The rig is expected to remain in Salt Lake City at the Lang Exploratory Drilling shop until such time as the pipe handling system has been built and installed (September, 1990).

Please acquire the necessary operating permits (if required) so that the rig can be driven to the Nevada Test Site in October of this year.

Please contact me at 794-7943 if you have any questions.

A handwritten signature in black ink, appearing to read "Uel S. Clanton".

Uel S. Clanton, Chief  
Site Investigations Branch  
Regulatory & Site Evaluation Division  
Yucca Mountain Project Office

YMP:USC-3529

#### Enclosures:

1. Ltr 4/5/90 Pritchett to Dixon
2. LM-300 Rig Specifications

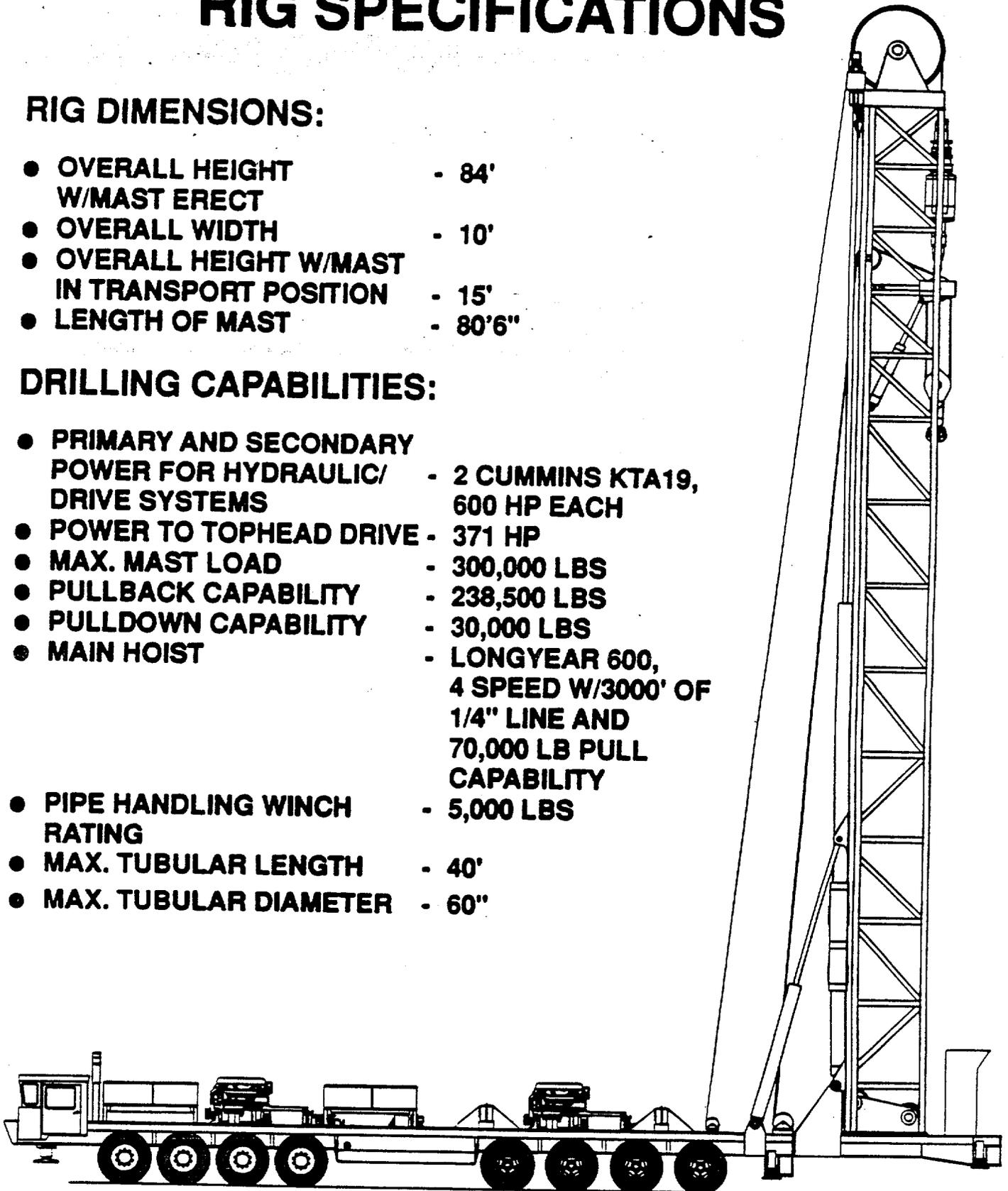
# LM-300 RIG SPECIFICATIONS

## RIG DIMENSIONS:

- OVERALL HEIGHT W/MAST ERECT - 84'
- OVERALL WIDTH - 10'
- OVERALL HEIGHT W/MAST IN TRANSPORT POSITION - 15'
- LENGTH OF MAST - 80'6"

## DRILLING CAPABILITIES:

- PRIMARY AND SECONDARY POWER FOR HYDRAULIC/ DRIVE SYSTEMS - 2 CUMMINS KTA19, 600 HP EACH
- POWER TO TOPHEAD DRIVE - 371 HP
- MAX. MAST LOAD - 300,000 LBS
- PULLBACK CAPABILITY - 238,500 LBS
- PULLDOWN CAPABILITY - 30,000 LBS
- MAIN HOIST - LONGYEAR 600, 4 SPEED W/3000' OF 1/4" LINE AND 70,000 LB PULL CAPABILITY
- PIPE HANDLING WINCH RATING - 5,000 LBS
- MAX. TUBULAR LENGTH - 40'
- MAX. TUBULAR DIAMETER - 60"





# Reynolds Electrical & Engineering Co., Inc.

Post Office Box 98521 • Las Vegas, NV 89193-8521

IN REPLY REFER TO:

580-01-361

April 5, 1990

WBS 1.2.3.5.2

"QA: N/A"

Wendy R. Dixon, Director  
Project & Operations Control Division  
Yucca Mountain Project Office  
Nevada Operations Office  
U.S. Department of Energy  
Post Office Box 98518  
Las Vegas, NV 89193-8518

## OPERATING PERMIT FOR THE LM-250 DRILL RIG

State of Nevada Air Quality Regulations require an operating permit for portable internal combustion engines with 500 or greater horsepower (HP). The LM-250 drill rig has two 600 HP diesel engines which meet the requirements of this regulation.

Operating permits will need to be obtained before the drill rig is used on the Nevada Test Site. Historically, a minimum of three months should be allowed for these permits. It is our understanding that your office is handling all permits required for Yucca Mountain Project activities.

Any additional information required by your staff can be provided by Clarence Mason at 794-7314 or Sandra Hughes at 794-7192.

R. F. Pritchett, Manager  
Yucca Mountain Project Division  
YMP Technical Project Officer

RFP:SLH:2:rm

cy See Page 2

R. F. Pritchett THRU O. L. Haworth  
Original Signed By  
D. L. Howard

April 11, 1990

NEW AIR QUALITY PERMITTING REQUIREMENTS FOR INTERNAL  
COMBUSTION ENGINES

The state of Nevada Department of Environmental Protection has added provisions to the Nevada Administrative Code concerning permitting of internal combustion engines. The revision in the code now requires Air Quality Permits for all portable internal combustion engines of 500 horsepower or greater, and for 250 horsepower internal combustion engines. The horsepower is determined by the specification designated on the manufacture identification engine plate. This requirements does not include any type of mobile engines (i.e., heavy equipment, mobile tractors, etc.). Attached is the notification of changes, the permit application form, and the new regulations.

If you have any questions please contact the Environmental Compliance Office at 295-7221.

OLH/DLH:M15:bm

Enclosures  
As stated

*Stationary  
PTP*

- cy: Central Files, w/encls., M/S 530
- W. G. Flangas, w/encls., M/S 615
- V. Gong, w/encls., M/S 533
- S. L. Hughes, w/encls., M/S 408
- R. B. Land, w/encls., M/S 585
- D. N. McNelis, w/encls., M/S 417
- V. M. Milligan, w/encls., M/S 765



REECO-YMP  
DOCUMENT CONTROL  
APR 12 9 49 AM '90

BOB MILLER

Administration 702/885-4670  
Air Quality 885-5065  
Construction Grants 885-5970

STATE OF NEVADA

Groundwater 702/885-4670  
Waste Management 885-5065  
Water Pollution 885-4670



DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
DIVISION OF ENVIRONMENTAL PROTECTION  
201 South Fall Street  
Carson City, Nevada 89510

IMPORTANT NOTICE

February 19, 1990

To: Air Quality Permit Holders  
From: Nevada Division of Environmental Protection/Air Quality Section  
Subject: Modifications to the Air Quality Regulations

Modifications to the Air Quality Regulations, as contained in the Nevada Administrative Code, were filed with the Secretary of State and became effective on December 8, 1989. The Air Quality Section is taking the initiative at this time of notifying you of the following changes.

1. Section 445.696 of the Nevada Administrative Code was modified to require issuance of a Notice of Violation to any owner or operator who fails to comply with production and hours of operation.

Therefore, it is suggested that your company review the permit restrictions on each Operating Permit and Permit to Construct, and if applicable, submit the yearly production and operating hours for 1989 for each source by April 15, 1990.

Failure to submit this information is a minor violation of the Nevada Administrative Code and subject to a \$50.00 fine for the first violation; a \$100.00 fine for the second violation; and a \$200.00 fine for the third violation. Upon the fourth violation with a period of 60 consecutive months, the violation becomes major.

2. Portable internal combustion engines 500 horsepower or greater, and stationary internal combustion engines 250 horsepower or greater, now require Air Quality Permits. NOTHING MOBILE

*Permit*

3. Sources of air toxic emissions must now comply with the toxic air quality standards at the point of closest public access, instead of at the nearest residence or public compound. This will affect future permitting as well as renewal of operating permits.

If you have any questions regarding these matters or need application forms to permit internal combustion engines, please contact the permitting staff of the Air Quality Section by letter or by telephoning 607-5065 or toll-free within Nevada at 1-800-992-0900, extension 5065.

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COURT**AUTHORITY: NRS 445.461**

Section 1. Chapter 445 of NAC is hereby amended by adding thereto a new section to read as follows:

*"Alteration" means any addition to, or enlargement, replacement, modification or change of the design, capacity, process, arrangement, operating hours or control apparatus that will affect the kind or amount of air contaminants emitted.*

Sec. 2. NAC 445.430 is hereby amended to read as follows:

445.430 As used in NAC 445.430 to 445.846, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445.432 to 445.655, inclusive, and section 1 of this regulation, have the meanings ascribed to them in those sections.

Sec. 3. NAC 445.569 is hereby amended to read as follows:

445.569 "Point source" means [:

1. Any] *any stationary or portable source causing emission in excess of 25 tons (23 metric tons) per year of any pollutant for which there is an ambient air standard . [; or*

2. *Any stationary or portable source, without regard to amount of emission, listed in 40 C.F.R. § 51, Appendix C.]*

Sec. 4. NAC 445.613 is hereby amended to read as follows:

445.613 "Single source" means all similar process operations located at a single premise which can technically and economically be replaced by a single [process] *piece of equipment* that performs the same function. [Two or more pieces of equipment or processes that handle different materials or produce dissimilar products will be treated separately.]

Sec. 5. NAC 445.696 is hereby amended to read as follows:

445.696 1. In addition to the requirements of NRS 445.526, the director shall issue a notice of violation to any owner or operator who:

(a) Fails to construct a source in accordance with the application as approved by the director;

(b) Fails to construct and operate a source in accordance with the conditions imposed by the director which appear on the permit to construct or operating permit; [or]

(c) Commences construction or modification of a source without applying for and receiving a permit to construct as required by NAC 445.430 to 445.846, inclusive [.] ; or

(d) *Fails to report yearly production and operating hours as required by a permit to construct or an operating permit.*

2. The written notice must specify the provision of the permit to construct or the operating permit that is being violated.

3. Written notice shall be deemed to have been served if delivered to the person to whom addressed or if sent by registered or certified mail to the last known address of the person.

Sec. 6. NAC 445.699 is hereby amended to read as follows:

445.699 1. [Any violation of a provision of NAC 445.430 to 445.846, inclusive, except NAC 445.662 and 445.721 to 445.724, inclusive, as they pertain to the internal combustion engine, is subject to an administrative fine levied by the commission or an approved local control agency of not more than \$5,000 per violation.

2. Unless otherwise provided, all violations are classified as major violations] *Except as otherwise provided in NAC 445.430 to 445.846, inclusive, any violation of the provisions of those sections is classified as a major violation and a fine up to \$5,000 per occurrence may be levied.*

[3.] 2. Violations of subsections 3 and 4 of NAC 445.667, subsection 8 of NAC 445.682, subsection 2 of NAC 445.692, *paragraph (d) of subsection 1 of NAC 445.696* and NAC 445.716, 445.734, 445.753, 445.754 and 445.844 are classified as minor or lesser violations, unless there are four or more violations of any one of those sections by a person, occurring within a period of 60 consecutive months.

[4.] 3. The schedule of fines for minor violations is as follows:

|                                     | First   | Second  | Third   |
|-------------------------------------|---------|---------|---------|
|                                     | Offense | Offense | Offense |
| Subsection 3 or 4 of NAC 445.667,   |         |         |         |
| reporting of excess emissions ..... | \$125   | \$250   | \$500   |

|  |           |            |            |
|--|-----------|------------|------------|
| Subsection 8 of NAC 445.682, testing<br>and sampling reporting .....   | 100       | 200        | 400        |
| Subsection 2 of NAC 445.692, reporting<br>of monitoring systems.....   | 100       | 200        | 400        |
| <i>Paragraph (d) of subsection 1 of NAC<br/>445.696, reporting of yearly<br/>production and operating hours.....</i> | <i>50</i> | <i>100</i> | <i>200</i> |
| NAC 445.716, change of location .....  | 100       | 200        | 400        |
| NAC 445.753, open burning.....   | 50        | 100        | 200        |
| NAC 445.754, incinerator burning, equal<br>to or less than 25 lbs (11 kg) per hour                                   | 50        | 100        | 200        |
| greater than 25 lbs (11 kg) per hour....   | 50        | 100        | 200        |
| NAC 445.734, fugitive dust .....   | 125       | 250        | 500        |
| NAC 445.844, odors.....  | 100       | 200        | 400        |

[5.] 4. All minor violations become major violations upon the occurrence of the fourth violation of the same section within a period of 60 consecutive months.

Sec. 7. NAC 445.705 is hereby amended to read as follows:

★ 445.705 The following existing and new single sources do not require permits to construct or operating permits:

1. Air-conditioning equipment or fuel-burning equipment having a rating of less than 4,000,000 Btu's (1,000,000 kg-cal) per hour.

2. Motor vehicles [,] and special mobile equipment . [and internal combustion engines.] *As used in this subsection, "special mobile equipment" has the meaning ascribed to it in NAC 445.884.*

3. Residential and commercial housekeeping vacuum systems.

4. Incinerators with less than 25 lb (11 kg) per hour rated burning capacity.

5. Agricultural land use.

6. Storage containers for gasoline, petroleum distillate or other volatile organic compounds having a capacity of less than 40,000 gallons (150 kiloliters).

7. Equipment or contrivances used exclusively for the processing of food for human consumption.

8. Disturbing topsoil of less than 20 acres (8 hectares).

9. Maximum allowable throughput of less than 50 lb (23 kg) per hour.

★ 10. *Portable internal combustion engines of less than 500 horsepower output.*

★ 11. *Stationary internal combustion engines of less than 250 horsepower output.*

*Therefore, any engine over these figures must have a permit.*

Sec. 8. NAC 445.707 is hereby amended to read as follows:

445.707 1. A separate permit to construct is required for each new or modified single source. A valid permit must be obtained before the commencement of construction or alteration of any single source of air contaminant.

2. Requests for the issuance of a permit or the replacement of a lost or damaged permit must be submitted to the director on the application form provided by him. One-half of the fee for an initial operating permit must accompany the application.

3. Within [5] 10 working days after receiving an application for a permit, the director shall determine if any additional information is needed. Within [15] 30 days after receiving adequate information, the director shall make a preliminary determination to issue or deny a permit. The director shall give preliminary notice of his intent to issue or deny the permit for a single source within [15] 30 days after receiving adequate information for reviewing the application.

4. The director's review and preliminary intent to issue or deny a permit to construct for stationary sources which have the potential to emit greater than 100 short tons (91 metric tons) of air contaminants per year must be made public and maintained on file with the director during normal business hours at 201 South Fall Street, Carson City, Nevada, and in the air quality region where the source is located at a site specified in a prominent advertisement by the director for 30 days to enable public participation and comment. All comments on the director's review and preliminary intent for issuance or denial must be submitted in writing to the director within 30 days after the public announcement.

5. Within [75] 90 days after receiving adequate information, pursuant to NAC 445.708 to 445.711, inclusive, the director shall issue or deny the application for a permit. The director shall make his decision by taking into

account written public comments on the director's review and preliminary intent for issuance or denial, information submitted by proponents of the project and the effect of such a facility on the maintenance of the ambient air quality standards contained in NAC 445.843 and the control strategy contained in the air quality plan.

6. A permit to construct only expires if construction of a new or modified source is not commenced within 1 year after the date of issuance thereof or construction of the facility is delayed for 1 year after initiated.

Sec. 9. NAC 445.7175 is hereby amended to read as follows:

445.7175 The director may set acceptable concentrations of toxic or hazardous air contaminants for the quality of ambient air at the point [:

1. Where] *where* the general public has access . [when the source of the contaminant is located in or within 1 mile of the boundary of Babbitt, Battle Mountain, Caliente, Carlin, East Ely, Elko, Ely, Fallon, Fernley, Gabbs, Gardnerville, Gardnerville Ranchos, Genoa, Hawthorne, Johnson Lane, Lovelock, McGill, Minden, Tonopah, Topaz Ranch Estates, Virginia City, Weed Heights, Wells, Winnemucca, Yerington, the Nevada portion of the Tahoe Basin, Carson City or those portions of Douglas or Lyon County that are within 1 mile of the boundary of Carson City.

2. Of the nearest permanent residence or public campground if the residence or campground is located outside an area described in subsection 1.]

Sec. 10. NAC 445.7195 is hereby amended to read as follows:

445.7195 1. Before a permit to construct or an operating permit will be issued, or an operating permit will be renewed, where reasonable methods exist for quantifying and performing dispersion modeling for air quality, the applicant shall provide the director with an analysis of the probable effect on the quality of the ambient air for each toxic or hazardous air contaminant:

(a) For which a toxic factor exists; and

(b) Which the director determines would be emitted by the source in an amount exceeding 0.25 pound or 113 grams per 8-hour shift, to determine whether the contaminant would exceed the acceptable concentration at [a] *the* point described in NAC 445.7175.

2. Before a permit to construct will be issued, an analysis of the probable effect of the contaminant on the quality of air must conclude that the emission of the toxic or hazardous air contaminant from the source will not exceed the acceptable concentration at [a] *the* point described in NAC 445.7175. If an unacceptable concentration is predicted or demonstrated to occur, then the best available control technology must be applied to the source to achieve compliance with the acceptable concentration.

3. Before an operating permit will be issued, the applicant must demonstrate by monitoring the ambient air, the sampling of emissions or using a predictive model approved by the director that the acceptable concentration is not exceeded at [a] *the* point described in NAC 445.7175.

4. An operating permit will not be renewed unless the source is in compliance or on an approved schedule for compliance with an acceptable concentration upon the date specified for renewal pursuant to NAC 445.713 or

within 1 year after the concentration is determined by the director, whichever is later, unless the commission extends the period of compliance. The schedule for compliance must require the application of the best available control technology within a reasonable time as prescribed by the director or local air pollution control agency.

Sec. 11. NAC 445.720 is hereby amended to read as follows:

445.720. [Notwithstanding the fact that the acceptable concentration of a toxic or hazardous contaminant in the ambient air is exceeded, the director may issue a permit to construct or operating permit or renew an operating permit if:

1. All practical technologies for control of the contaminant will be applied; and

2. Issuing the permit to construct, operating permit or renewal is not reasonably anticipated to result in an increase in mortality or an increase in serious irreversible or incapacitating reversible illness.] *Except as otherwise provided in NAC 445.717 to 445.7205, inclusive, an owner or operator shall not cause or permit the discharge into the atmosphere from any stationary source of any toxic or hazardous air contaminant that:*

1. *Exceeds the acceptable concentration established by the director in accordance with NAC 445.7175; or*

2. *Threatens the health and safety of the general public, as determined by the director.*