TECHNICAL SUPPORT DOCUMENT FOR AMENDMENTS TO SECTIONS 12.2, 12.3, 12.4, AND 12.5 OF THE CLARK COUNTY AIR QUALITY REGULATIONS

INTRODUCTION

The Clark County Department of Environment and Sustainability, Division of Air Quality (DAQ) is proposing amendments to Sections 12.2, 12.3, 12.4, and 12.5 of the Clark County Air Quality Regulations (AQRs) to ensure consistency across local stationary source permitting regulations and with federal language, address feedback from the U.S. Environmental Protection Agency (EPA) on previously submitted versions of these regulations, and respond to recent changes in federal requirements due to the nonattainment reclassification of the local area.

On December 19, 2025, EPA reclassified the Las Vegas Valley as a serious nonattainment area for the 2015 national ozone standard effective January 21, 2025 (89 FR 103657), requiring DAQ to prepare an attainment plan addressing the more stringent planning requirements under Section 182(c) of the Clean Air Act (the Act). This reclassification requires stricter permitting thresholds and offset ratios for major stationary sources of nitrogen oxides (NO_x) and volatile organic compounds (VOCs):for instance, reducing the major source threshold from 100 to 50 tons per year (tpy), lowering the significant emissions increase threshold from 40 to 25 tpy, and increasing the nonattainment new source review (NNSR) emissions offset ratio from 1.15:1 to 1.2:1. This ratio now applies to all new major sources and to major modifications at existing sources.

The proposed amendments incorporate these new thresholds and make additional updates to address EPA feedback and to ensure consistency with federal regulations and other sections of the AQRs. AQR 12.2, which governs permit requirements for major sources in attainment areas, will add provisions for portable sources, extend public notice periods, and update $PM_{2.5}$ significance levels. AQR 12.3, covering major sources in nonattainment areas, will revise definitions, remove outdated language, and align offset ratios and trading restrictions with federal standards. AQR 12.4, addressing authority to construct requirements for Part 70 sources, will revise definitions and portable source requirements, as well as strengthen public participation provisions. AQR 12.5, which governs Part 70 operating permits, will revise definitions, add portable source requirements and specific insignificant activities, and align permit content and revision procedures with federal rules and other AQRs.

Table 1 highlights important dates, including the latest rule versions approved by the Clark County Board of County Commissioners (BCC) and the current status of submittals to EPA. In September 2010, DAQ submitted AQR 12.5 to EPA for Part 70 program approval to align the county-enforced program with the federally enforceable program in 40 CFR Part 70, Subpart A; however, since EPA had authorized the agency's permitting authority outside of the SIP process, AQR 12.5 was not submitted for inclusion into the Nevada State Implementation Plan (SIP). DAQ is now requesting AQR 12.5 be incorporated into the Nevada SIP because of extensive cross-references to it throughout the other SIP-approved local major source and Part 70 permitting regulations.

Table 1. Current Status of EPA Actions on AQR Section Submittals

Section	Date of Latest BCC Approval	Date NDEP Submitted to EPA	Status
12.2	3/18/2014 (Ord. No. 4189)	4/1/2014	Full approval into Nevada SIP on 10/17/2014 (79 FR 62350)_
12.3	7/20/2021 (Ord. No. 4873)	1/31/2022	EPA action pending
12.4	7/20/2021 (Ord. No. 4873)	1/31/2022	EPA action pending
12.5	5/18/2010 (Ord. No. 3863)	9/20/2010	EPA action pending

Amendments to Section 12.2, "Permit Requirements for Major Sources in Attainment Areas (Prevention of Significant Deterioration)"

AQR 12.2 is amended by modernizing the prevention of significant deterioration (PSD) permitting procedures to clarify the treatment of portable major sources, incorporate $PM_{2.5}$ emissions into the determination of significance levels, and strengthen public notice requirements. These updates ensure consistency across the major source permitting regulations. Editorial changes included administrative and nonsubstantive changes, along with citation corrections. This section describes the substantive changes made.

AQR 12.2.1.3(b): Adding Portable Source Relocation Requirements

This revision adds language consistent with AQR 12.3.1.3 to clarify that portable sources permitted under AQR 12.2 may relocate within Clark County by complying with the requirements in AQR 12.4.3.1(e). The previous version did not explicitly identify the relocation pathway for such sources, which could have led to uncertainty and duplicative review steps during the permitting process. This amendment confirms that relocations conducted under the established procedures in AQR 12.4.3.1(e) satisfy the necessary permitting obligations, ensuring alignment between construction and operating permit provisions. The change enhances administrative efficiency, reduces the potential for inconsistent processing, and provides clearer guidance on relocation requirements. By establishing a uniform and streamlined relocation pathway, the revision supports both compliance continuity and effective program implementation.

AQR 12.2.1.4(e): Hybrid Testing Emissions "Increases" Versus Emissions "Differences"

This revision updates AQR 12.2.1.4(e) to align with 40 CFR Part 52.21(a)(2)(iv)(F) and AQR 12.3.1.4(e). EPA revised Step 1 of the NSR major modification applicability test to clarify that both emissions increases and decreases resulting from a proposed project can be considered. Specifically, the term "sum of the emissions increase" was replaced with "sum of the difference" in 40 CFR Part 52.21(a)(2)(iv)(F), aligning it with 40 CFR Part 52.21(a)(2)(iv)(c) & (d). The revision applies to all emissions units, ensuring that for projects involving multiple unit types, owners calculate differences for existing and new units and then combine them under the hybrid test. 40 CFR Part 52.21(a)(2)(iv)(G) specifies that the "sum of the difference" includes both increases and decreases in emissions. These changes improve clarity and provide a more accurate accounting of a project's emissions impact.

AQR 12.2.8(b)(4): Advance Notice for Portable Source Relocation

This revision updates the required advance notice for portable source relocations, increasing the minimum submittal time from at least 10 days to at least 90 days. The previous notice period limited the time available for DAQ to complete relocation reviews. This amendment clarifies that a 90-day advance notice is required to provide DAQ the time needed to verify ambient air quality impacts, complete public notice obligations, and engage with stakeholders and affected communities. The change aligns the relocation process with best practices for transparency and environmental review, improves predictability for regulated entities, and supports more effective oversight by ensuring that relocation requests can be evaluated comprehensively before a move occurs.

AQR 12.2.10.2 Table 3: Adding $PM_{2.5}$ Significance Levels

This revision updates Table 3 to include annual and 24-hour $PM_{2.5}$ significance levels for PSD violation determinations, ensuring alignment with current National Ambient Air Quality Standards, the latest federal modeling guidance, and 40 CFR Part 51.165(b)(2). The previous table did not reflect $PM_{2.5}$ significance thresholds, which could limit the completeness of PSD impact assessments for PM. This amendment incorporates those values to ensure that $PM_{2.5}$ impacts are evaluated consistent with regulatory requirements and technical expectations. The change strengthens the regulatory framework for PM control, enhances the accuracy of air quality impact analyses, and supports the effective implementation of PSD review by providing clearer and more comprehensive significance criteria.

AQR 12.2.16.4: Increasing Public Hearing Posting Period

This revision increases the minimum posting period for public hearing information on the DAQ website from 7 days to 30 days. It clarifies that a 30-day posting period is required, ensuring consistency with the public participation provisions in AQR 12.4.3.3(d)(4) and AQR 12.5.2.17(d) and the permitting standards in 40 CFR Part 70.7(h)(4). The change enhances public accessibility, promotes more effective engagement in the permitting process, and aligns local procedures with established federal expectations for transparency. By extending the time frame for posting, this revision strengthens the overall public participation framework and supports informed community involvement.

Amendments to Section 12.3, "Permit Requirements for Major Sources in Nonattainment Areas"

AQR 12.3 is amended by modernizing NNSR permitting procedures to remove post-construction applicability language, revise definitions to reflect federal thresholds, and incorporate updated offset ratios and plant-wide applicability limitation (PAL) provisions. These changes ensure SIP consistency, reduce unnecessary regulatory burdens, and support attainment goals for ozone and PM standards. Editorial changes included administrative and nonsubstantive changes, along with citation corrections. This section describes the substantive changes made.

AQRs 12.3.1.2 and 12.3.1.4: Removal of Post-Construction Language

This revision removes language requiring post-construction evaluations to determine major modification status, ensuring consistency with federal applicability procedures and terminology. The rule previously included post-construction applicability checks, which are not part of the federal NSR framework and could create confusion about when to conduct significance and applicability tests. This amendment clarifies that such determinations apply only to preconstruction, aligning local methodology with established federal NSR requirements. The change eliminates unnecessary regulatory burdens, improves procedural clarity, and supports the consistent implementation of NSR applicability evaluations by removing provisions that exceed federal obligations.

AQRs 12.3.1.2(a)(2) and (b)(2): Deleted

This revision removes provisions that allowed applicability determinations to be based on post-construction emissions, aligning with federal NSR requirements. The rule previously allowed post-construction evaluations to inform major modification status, a practice not included in the federal methodology and one that could introduce unnecessary complexity into the applicability process. This amendment clarifies that NSR applicability determinations must be completed before construction, consistent with established federal procedures. The change reduces unnecessary regulatory burdens, improves clarity, and supports consistent implementation of NSR requirements by eliminating provisions that exceed federal obligations.

AQRs 12.3.1.4(a) and (c): Amended

This revision updates these sections to clarify that applicability tests—such as actual-to-projected-actual, actual-to-potential, and hybrid methodologies—apply only prior to the commencement of construction, ensuring consistency with federal NSR procedures. The previous rule language did not clearly distinguish the timing of these tests, which could lead to uncertainty regarding whether post-construction evaluations are required to determine major modification status. This amendment affirms that all applicability determinations must be completed before construction begins, aligning the local program with established federal methodology. This change improves clarity, reduces the potential for misapplication of applicability tests, and supports the consistent implementation of NSR requirements by removing ambiguity surrounding the timing of these evaluations.

AQR 12.3.2: Definitions

AQR 12.3.2(r), "Major Stationary Source," was amended to incorporate federal emissions thresholds for various nonattainment classifications by pollutant, ensuring consistency with 40 CFR Part 51.165(a)(1)(iv)(A) and Section 302(j) of the Act. AQR 12.3.2(v), "Portable source," was modified to

remove the 24-month relocation restriction, ensuring consistency with updated portable source requirements across the major and Part 70 source AQRs. AQR 12.3.2(dd), "Significant," was updated to include pollutant-specific thresholds for different nonattainment classifications, matching federal NSR significance levels in 40 CFR Part 51.165(a)(1)(x).

AQR 12.3.6: Emissions Offset

This revision updates AQR 12.3.6.1 by clarifying the sufficiency of emissions reductions while maintaining the original requirements. The previous phrasing could allow varying interpretations on how reductions must be evaluated. This amendment provides clearer wording without altering the obligations. AQR 12.3.6.3(c) is revised to clarify compliance with the interprecursor offset provisions in 40 CFR Part 51.165(a)(11), aligning with federal requirements for pollutant-specific offsetting. AQR 12.3.6.5(e) is amended to incorporate the federal offset ratios for ozone nonattainment areas, which range from 1.1:1 for marginal classifications to 1.5:1 for extreme classifications, as required under Section 173 of the Act and 40 CFR Part 51.165(a)(9). These updates strengthen consistency with federal NNSR requirements, enhance clarity, and ensure uniform implementation of offset provisions within the permitting program.

AQR 12.3.9.9(e): PAL Expiration

This revision updates language to align PAL provisions with the federal requirements in 40 CFR Part 51.165(f)(9)(v), ensuring the provisions remain fully enforceable and consistent with the SIP. The previous wording did not mirror the federal language as closely, which could lead to uncertainty regarding the enforceability of PAL conditions under the approved SIP framework. This amendment clarifies the applicable federal reference and strengthens the alignment between local and federal regulations. The change enhances regulatory consistency, supports effective implementation of PAL requirements, and ensures DAQ's permitting program remains compliant with federal enforceability standards.

Amendments to Section 12.4, "Authority to Construct Application and Permit Requirements for Part 70 Sources"

AQR 12.4 is amended by modernizing authority to construct permitting for Part 70 sources: it revises applicability thresholds for ozone nonattainment areas and updates relocation requirements for portable sources. These changes ensure consistency with federal NSR and Title V programs, reduce unnecessary permitting burdens, and support attainment goals for ozone and other criteria pollutants. Editorial changes included administrative and nonsubstantive changes. This section describes the substantive changes made.

AQR 12.4.1.1(a)(1): Exemption for Applicability Threshold Changes

This revision adds clarifying language establishing that sources are not required to obtain an authority to construct permit when they become newly subject to Part 70 solely due to changes in applicability thresholds. Previously, threshold adjustments could unintentionally trigger permitting obligations even when no physical or operational modifications occurred. This amendment confirms that such administrative changes in status do not, by themselves, create new construction permitting requirements, consistent with the intent of the federal Title V program. The change improves clarity, prevents unnecessary permitting actions, and ensures uniform implementation of applicability provisions within the permitting framework.

AQR 12.4.2: Definitions

AQR 12.4.2.1(d), "Minor NSR Significant Levels," was amended to lower the VOC and NO_x thresholds from 20 tpy to 12.5 tpy for ozone nonattainment areas classified as "serious" or higher. This aligns with reduced federal significant thresholds for serious ozone nonattainment areas under 40 CFR Part 51.165. AQR 12.4.2.1(g), "Portable Source," was amended to remove the 24-month operating limit for portable major and Part 70 sources. This is consistent with updated Part 70 portable source provisions and provides operational flexibility without compromising compliance.

AQR 12.4.3.1(a): Application Requirements

This revision updates AQR 12.4.3.1(a)(8) by clarifying that Reasonably Available Control Technology (RACT) demonstrations must be included when required by other applicable AQR provisions. The previous language did not clearly indicate when such demonstrations were necessary, which could have led to the inconsistent application of SIP-mandated RACT requirements. This amendment provides clearer direction while maintaining the underlying compliance obligations. AQR 12.4.3.1(a)(15) is revised to require submission of a map depicting property boundaries, aligning Part 70 application requirements with the minor source provisions in AQR 12.1.3.6(b)(6). These updates enhance the completeness and transparency of permit applications and promote consistent implementation across permitting programs.

AQR 12.4.3.1(e): Portable Source Relocation

This revision updates AQR 12.4.3.1(e) by clarifying application and relocation requirements for portable major sources. The existing provisions in AQR 12.4.3.1(e)(1)(C) and (D) are removed because portable major sources are not permitted to relocate between attainment and nonattainment areas, making the requirements unnecessary. This amendment also eliminates the two-year operational restriction in AQR 12.4.3.1(e)(1)(E), which no longer aligns with DAQ permitting practices. The advance notice provision in AQR 12.4.3.1(e)(1)(C) is revised to require submittal of relocation notices at least 90 days before all moves; AQR 12.4.3.1(e)(1)(F)(ii) is revised and AQR 12.4.3.1(e)(1)(F)(iii) is deleted to ensure consistency with the updated time frame for notices. These changes streamline relocation procedures, provide adequate review time for permitting staff, and maintain alignment with public participation requirements while ensuring continued environmental protection.

AQR 12.4.3.2(c)(7): Application Processing Procedures

This revision adds new language to AQR 12.4.3.2(c) to explicitly implement the requirements of Section 173(a)(4) of the Act, which prohibits issuance of an authority to construct permit in any nonattainment area where the Administrator has determined the applicable implementation plan is not being adequately implemented. The added provision clarifies that the Control Officer must evaluate whether such a federal determination exists and, if so, refrain from issuing the permit. Incorporating this federal requirement directly into local application processing procedures strengthens regulatory transparency, ensures consistency with the Act's nonattainment permitting obligations, and provides clear notice that permit issuance is contingent on the adequacy of SIP implementation as determined by the Administrator.

AQR 12.4.3.3(b): Public Participation

This revision updates public participation provisions to align with the new requirement for a uniform 90-day advance notice for all portable major source relocations. Under the previous rule, notice obligations were triggered only when a relocation occurred within 1,000 feet of a school, hospital, or residential area, with shorter timelines of 30 or 60 days (depending on proximity). The proposed change eliminates these tiered deadlines and applies a consistent 90-day notice period to every relocation request, ensuring adequate time for posting a Notice of Proposed Action, receiving public comments, and scheduling hearings if warranted. The change improves transparency, simplifies compliance, and complements public participation procedures with the updated application requirements in AQR 12.4.3.1(e), thereby strengthening community engagement and regulatory predictability.

AQR 12.4.3.4(a)(18): Permit Content

This revision updates permit content requirements for portable major sources to align with proposed changes to AQR 12.4.3.1(e) and maintain consistency with the approach for portable minor sources under AQR 12.1.4.1(z). This amendment replaces the previous tiered notification deadlines (60 days for relocations near sensitive receptors, 30 days for all others) with a uniform 90-day advance notice requirement for every relocation. It also standardizes the minimum information elements (e.g., proposed location, relocation date, duration of operation, potential emissions) on the Control Officer's specified form. These changes complement permit conditions with application requirements and public participation procedures, ensuring clarity, predictability, and adequate time for review and

community engagement. By mirroring the structure used for portable minor sources, the revision promotes program consistency and simplifies compliance obligations for operators managing both major and minor portable sources.

Amendments to Section 12.5, "Part 70 Operating Permit Requirements"

AQR 12.5 is amended by modernizing Part 70 permitting: clarifying applicability criteria, revising thresholds for ozone nonattainment areas, and updating relocation and permit content requirements for portable sources. These changes ensure consistency with federal NSR and Title V programs, reduce unnecessary permitting burdens, and support attainment goals for ozone and other criteria pollutants. Editorial changes included administrative and nonsubstantive changes. This section describes the substantive changes made.

AQR 12.5.1: Definitions

AQR 12.5.1(d), "Minor NSR significant levels," is amended to lower the VOC and NO_x thresholds from 20 tpy to 12.5 tpy for ozone nonattainment areas classified as "serious" or higher. This aligns with reduced federal significant thresholds for serious ozone nonattainment areas under 40 Part 51.165. AQR 12.5.1(g), "Preconstruction review applicability criteria," was amended to align with AQR 12.4.1.1 by clarifying applicability for projects that increase a source's potential to emit above minor NSR thresholds and by incorporating exemptions for sources that become Part 70 sources solely due to applicability threshold changes. These changes prevent unnecessary permitting actions and maintain consistency across related AQR sections.

AQR 12.5.2.1(a)(5): Timely Applications

This revision adds AQR 12.5.2.1(a)(5) to align timely application requirements with the new 90-day advance notice for all relocations of portable major sources. The rule did not previously specify a uniform lead time for relocation requests, relying instead on general timeliness provisions. This amendment clarifies that applications associated with portable major source relocations must be submitted at least 90 days prior to the proposed relocation date, consistent with the updated requirements in AQRs 12.4.3.1(e), 12.4.3.3(b), and 12.4.3.4(a)(18). The change ensures consistency across permit applications, permit content, and public participation; provides adequate time for administrative review and public notice; and reduces the risk of delays or noncompliance. By standardizing the timeline, this revision improves predictability for regulated entities and supports effective implementation of relocation oversight.

AQR 12.5.2.5(a)(2): Air-Conditioning Units as Insignificant Activities and Emissions

This revision updates AQR 12.5.2.5(a)(2) to clarify the exemption for air-conditioning units used exclusively for human comfort and to ensure consistency with the exemption already established in AQR 12.1.2(b)(6). The rule's previous language on the applicability of this exemption across different permitting contexts could have been misinterpreted. This amendment specifies that air-conditioning units for human comfort are not subject to permitting requirements, aligning the exemption language across related AQRs and reinforcing a uniform regulatory approach. The change promotes consistent implementation among permitting programs, reduces the likelihood of inconsistent application or administrative delay, and provides clearer guidance to regulated entities. By standardizing the exemption language, the revision improves regulatory clarity and supports efficient program administration.

AQR 12.5.2.5(c): Insignificant Activities and Emissions

This revision adds to AQR 12.5.2.5(c) by incorporating a list of insignificant emission units and activities based on AQR 12.1.2(c) while ensuring alignment with the criteria established in 40 CFR Part 71.5(c)(11). The previous language referenced insignificant activities only indirectly, which created the potential for inconsistent interpretation across permitting programs. This amendment consolidates insignificant units and activities within AQR 12.5.2.5(c) and reaffirms that each emits no more than 2 tpy of any criteria pollutant, 5 tpy of a combination of criteria pollutants, 500 lb/yr of any hazardous air pollutant, or 1 tpy of a combination of hazardous air pollutants, consistent with federal insignificant thresholds. The change

promotes uniform application of the criteria for insignificance, improves clarity, and supports efficient implementation of administrative and permitting requirements. By standardizing the description of these activities, the revision enhances regulatory transparency and reduces the risk of procedural inconsistency.

AQR 12.5.2.5(c) was expanded to include fuel-burning equipment rated less than 1 million British thermal units per hour (MMBtu/hr); nonindustrial cooling towers rated less than 1,000 gallons per minute, with a drift loss rating of 0.05% or less; internal combustion emergency engines rated less than 35 horsepower (hp); ancillary activities to the primary function of the source (e.g., woodworking, parts washers, degreasers); and storage containers with a capacity of less than 40,000 gallons containing any petroleum liquid having a true vapor pressure of 1.5 pounds per square inch absolute (psia) or less. The fuels allowed for fuel-burning equipment and emergency engines are #2 fuel oil (diesel), liquid propane gas, natural gas, and refinery fuel gas. Gasoline is also allowed for emergency engines only, based on quantitative emissions analyses contained in the supporting calculations (see Attachment 1). These calculations demonstrate that, for small units below the Part 70 insignificant-activity thresholds (e.g., boilers less than 1 MMBtu/hr or engines less than 35 hp), pollutant emissions remain well below the emission criteria established in 40 CFR Part 71.5(c)(11)(ii).

For example, emission-factor calculations show low potential emissions for diesel-fired small boilers (e.g., $PM_{10} \approx 0.02$ lb/hr, $SO_2 \approx 0.0015$ lb/hr), natural-gas-fired units ($PM_{10} \approx 0.0076$ lb/hr, $NO_x \approx 0.014$ lb/hr), and propane combustion ($PM_{10} \approx 0.0077$ lb/hr, $NO_x \approx 0.014$ lb/hr). Analyses for gasoline-fueled engines (less than 35 hp) show potential emissions of 0.0007–0.02 lb/hr for criteria pollutants as well as for refinery fuel gas, for which SO_2 emissions were calculated at 28.5 pounds per million standard cubic feet based on the sulfur content limits in 40 CFR Part 60, Subpart J, still insignificant at less than 1 MMBtu/hr input rates. For cooling towers, the combined constraints on circulation rate (less than 1,000 gal/minute) and drift loss (0.05%) limit particulate matter emissions to 0.35 lb/hr. Emissions from ancillary maintenance activities (e.g., woodworking, parts washing, degreasing) are limited by their intermittent nature. For storage units, worst-case parameters were used in EPA TANKS 5.2 with a turnover assumption of 52 per year (2,080,000 gal/yr), resulting in VOC emissions ranging from 0.05–0.06 tpy. These data support the conclusion that inclusion of these units and activities in the Part 70 insignificant activity list maintains regulatory integrity while reducing unnecessary detail in permit applications.

AQR 12.5.2.6(a)(2): Permit Content

This revision updates AQR 12.5.2.6(a)(2) to incorporate language consistent with 40 CFR Part 70.6(a)(1)(ii), reinforcing that specified provisions shall be enforceable by the Administrator. This change strengthens regulatory consistency across permitting programs, provides clearer expectations for permit applicants, and supports effective enforcement by ensuring that all relevant requirements are captured within the permit itself. By standardizing the language with federal criteria, the revision enhances clarity and promotes uniform implementation of compliance obligations.

AQR 12.5.2.6(c)(4): Permit Duration

This revision adds AQR 12.5.2.6(c)(4) to align permit duration provisions with the requirements in AQR 12.4.3.2(f). It clarifies that if permit conditions are established through revising the Part 70 operating permit directly, without issuing a separate authority to construct permit, then that Part 70 permit serves as both the Part 70 operating and the authority to construct permit for the affected and constructed units. This change strengthens regulatory consistency across permitting program regulations and reduces the potential for administrative uncertainty.

AQR 12.5.2.6(g)(7): Standard Provisions

This revision adds AQR 12.5.2.6(g)(7) to introduce standard provisions governing portable source requirements, ensuring consistency with the relocation procedures and compliance obligations outlined in AQR 12.4.3.4(a)(18). The rule did not previously contain explicit language addressing these requirements within Part 70 permits, which could have resulted in inconsistent application of relocation-related

conditions. This amendment incorporates clear procedural and compliance expectations for portable sources, reaffirming that relocation activities must follow established notification, approval, and operational requirements. The change strengthens alignment across permitting provisions, enhances clarity for permit holders, and supports effective implementation of oversight for portable emission units. By standardizing these requirements within the Part 70 permit framework, the revision improves regulatory consistency and reduces the potential for administrative uncertainty.

AQR 12.5.2.14(a)(8): Authorization to Construct and Operate

This revision adds language authorizing construction and operation under minor permit revision procedures for projects that fall below the minor NSR thresholds, ensuring consistency with the provisions in AQR 12.4.3.2(e). The 2021 amendment of Section 12.4 clarified that a revised Part 70 operating permit may incorporate an authority to construct permit under certain circumstances when a separate authority to construct permit is not issued. Previously, the rule did not explicitly state that such projects could proceed under the streamlined minor revision pathway, which could lead to uncertainty regarding the appropriate permitting mechanism. This amendment clarifies that qualifying modifications may be processed through minor permit revision procedures, aligning permit processing requirements with established NSR applicability criteria. This change enhances regulatory clarity, promotes consistent implementation across permitting actions, and provides greater predictability for regulated entities by confirming the availability of an expedited pathway for projects with lower emissions impacts. Aligning these provisions supports efficient administrative review and reduces the potential for procedural ambiguity.

AQR 12.5.2.14(c)(3): Significant Permit Revision Procedures

This revision updates AQR 12.5.2.14(c)(3) to align the significant permit revision procedures with the requirements in AQR 12.4.3.2(d), allowing combined processing of authority-to-construct and Part 70 permit revisions for improved efficiency and consistency. The 2021 amendment of AQR 12.4 clarified that a revised Part 70 operating permit may incorporate an authority to construct permit under certain circumstances when a separate authority to construct permit is not issued. The previous language did not explicitly authorize concurrent processing of these permitting actions, which could lead to duplicative review steps and uncertainty for applicants regarding the appropriate procedural pathway. This amendment clarifies that significant revisions may be processed in a consolidated manner when both construction-related and operating permit modifications are required, ensuring that the permitting framework supports a coordinated review. The change enhances administrative efficiency, provides clearer expectations for regulated entities, and promotes consistency across permitting programs by integrating related processes into a single streamlined procedure.

AQR 12.5.2.17(f): Public Participation for Portable Major Sources

This revision incorporates public participation requirements for portable major sources, ensuring consistency with the updated relocation provisions in AQR 12.4.3.3. Previously, the rule did not explicitly require public notice and comment for the relocation of portable major sources, which could lead to uncertainty regarding transparency obligations during the relocation process. This amendment clarifies that relocations are subject to established public participation procedures, including appropriate notice and opportunity for public comment, aligning these requirements with both federal and local standards. The change enhances regulatory transparency, promotes consistent public engagement across permitting actions, and supports effective oversight by ensuring that communities are informed of and able to comment on proposed relocations. By integrating these requirements, the revision strengthens the clarity and consistency of public participation provisions within the permitting program.

PUBLIC WORKSHOP

DAQ hosted a public workshop on January 20, 2026, for the amendments to AQRs 12.2–12.5.

COMMENTS RECEIVED AND DAQ RESPONSES

DAQ conducted a public comment period (1/16/2026 to 1/30/2026) and received four comments on the proposed changes. DAQ also published a notice of public hearing in the *Las Vegas Review-Journal* and made drafts of AQRs 12.2–12.5 available for review, both online and at its offices, from March 2, 2026, to April 2, 2026. Staff has scheduled a public hearing before the Clark County Board of County Commissioners for May 19, 2026.

Comment Received: 1/29/2026, via email
Commentor: EPA Region 9

COMMENT: Regarding the below questions about adding the insignificant source list in Rule 12.1.2(c) to Rule 12.5.2.5(c), we do not see any issues as long as the County can show that the categories in the list meet the requirements of 40 CFR 71.5(c)(11) *Insignificant activities and emissions levels.* For any categories that are not listed under 71.5(c)(i) (e.g., mobile source, AC units, etc.), the County should provide a discussion/analysis of the potential emissions and how they will not exceed the 2 ton per year level.

We also did a preliminary review of Rule 12.5, comparing the rule requirements against EPA's title V checklist (attached), which is what we use to evaluate title V rules/revisions. Based on our preliminary review, Rule 12.5 should include additional definitions for "Major Sources" and "Subject to Regulation" (40 CFR part 70.2).

RESPONSE: The term "subject to regulation" is not used in AQR 12.5. DAQ uses the term "regulated air pollutant," which is defined in AQR 0. DAQ assumes it is not required to include a definition for a term that is not used in a regulation if a comparable, defined term is used. No changes are proposed at this time.

The term "major source" is defined in AQR 12.2 for attainment areas and in AQR 12.3 for nonattainment areas. DAQ is amending the opening paragraph in AQR 12.5.1 to include these AQRs, as shown below, so the definition of "major source" is included by reference.

"[~~The following definitions apply to defined terms used in Section 12.5.~~]Unless the context requires otherwise, the following terms shall have the meanings set forth for the purposes of Section 12.5. When a term is not defined *in these paragraphs*, it shall have the meaning provided in Section*s* 0,[~~Section~~] *12.2, 12.3, or* 12.4 *of the Clark County Air Quality Regulations (AQRs)*,[~~40 CFR 70.2,~~] *Chapter 445B of the Nevada Revised Statutes,* the *Clean Air* Act *(the Act)*, or common usage, in that order of priority."

Comment Received: 1/29/2026, via PublicInput
Commentator: Marc Jensen marcjanajensen@gmail.com

COMMENT: Section 12.2.16 the County Air Quality Regulations (AQRs) describes the requirements for public participation when an application under the Clean Air Act is being considered by the Control Officer for approval in both attainment and non-attainment areas. Public participation is an essential element of the process for approval or denial of a permit for construction or operation of a source affecting air quality under the Act. It appears that the proposed revisions would inappropriately remove the public participation requirements from Section 12.4.3.1 of the AQRs when an applicant proposes to move a previously permitted portable Part 70 source to a new location. If public participation was appropriate for the location of a previously permitted source, it should also be considered appropriate for the proposed new location of the source. Comment 2: The Clean Air Act and the County Air Quality Regulations (AQRs) are extremely complex and difficult for the average lay citizen to understand. Yet, our shared air quality is one of the most critical features of our living environment. The average citizen would just like to trust existing laws and regulations, along with trusting those officials charged with monitoring and compliance actions related to the laws and regulations, are effectively functioning to protect our shared air quality for the benefit of both health and aesthetics. However, it is desirable that the average citizen still play an important role in assuring that permitting, monitoring and compliance is done responsibly and that the desired benefits of the laws and regulations with respect to air quality are being achieved. To that end, I encourage the Division of Air Quality to conduct periodic workshops or seminars to offer education to the public about air quality laws and regulations. This will help interested citizens to better grasp the procedures and processes involved so they can offer observations that will be conducive to achieving the desired air quality standards. This education process would be particularly useful when considering applications with the potential to emit large quantities of chemicals or particulates of concern to the public health.

RESPONSE: These amendments increase the notification time from 30 or 60 days to 90 days for all portable source relocations. AQR 12.4.3.3(c), regarding public participation, maintains the 30-day Notice of Proposed Action, and portable sources remain subject to that because AQR 12.4.3.3(b) references paragraph (c). There are no changes proposed at this time.

The department's Small Business Assistance Program conducts multiple educational workshops throughout the year that are free, virtual, and available to the public. One of these provides an overview of recent changes to existing local air quality regulations and reviews any new regulations. The commentor was provided with links to participate in the local workshops and to receive push notifications when public comment periods and 30-day Notices of Public Hearings are initiated for AQR amendments, as well as links to EPA's AirKnowledge website, which contains free training modules on air quality basics.

Comment Received: 1/30/2026, via email with letter attached
Commentator: Sean Keane, Senior Consultant, Trinity Consultants, Inc.
skeane@trinityconsultants.com

COMMENT:

- CCAQR 12.2.1.4(e)
  - "Hybrid Test for Projects That Involve Multiple Types of Emissions Units. A significant emissions increase of a regulated NSR Pollutant is projected to occur if the sum of the emissions **increases** for each emissions unit, using the method specified in paragraph (c) or (d) of Section 12.2.1.4, as applicable with respect to each emissions unit, equals or exceeds the significant amount for that pollutant."

- The 85 FR 74890 (2020 Final Rule), 40 CFR 52.21(2)(iv)(F), and CCAQR 12.3.1.4(f) all indicate that the hybrid test should evaluate the "emissions difference" rather than the "emissions increase"

- 40 CFR 52.21(2)(iv)(F)
  - "(F) Hybrid test for projects that involve multiple types of emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the **difference** for all emissions units, using the method specified in paragraphs (a)(2)(iv)(c) and (d) of this section as applicable with respect to each emissions unit, equals or exceeds the significant amount for that pollutant (as defined in paragraph (b)(23) of this section)."

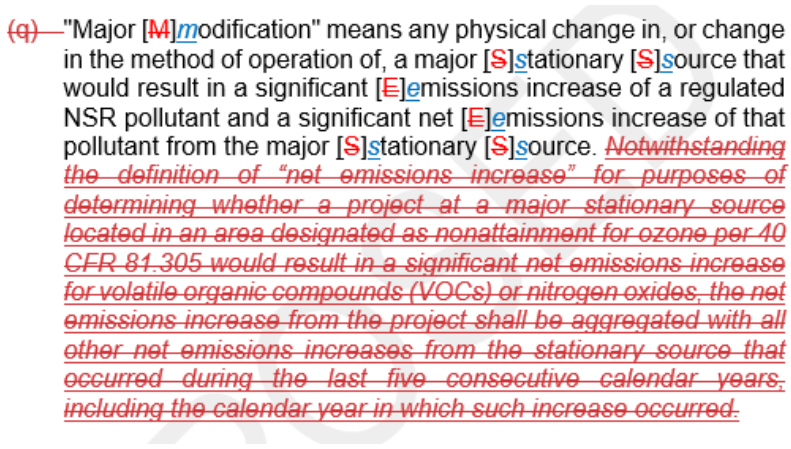
- Proposed Rule CCAQR 12.3.2(q)
  - "'Major modification' means any physical change in, or change in the method of operation of, a major stationary source that would result in a significant emissions increase of a regulated NSR pollutant and a significant net emissions increase of that pollutant from the major stationary source. **Notwithstanding the definition of 'net emissions increase' for purposes of determining whether a project at a major stationary source located in an area designated as nonattainment for ozone per 40 CFR 81.305 would result in a significant net emissions increase for volatile organic compounds (VOCs) or nitrogen oxides, the net emissions increase from the project shall be aggregated with all other net emissions increases from the stationary source that occurred during the last five consecutive calendar years, including the calendar year in which such increase occurred."**
  - 67 FR 80186 (2002 Final Rule) and the 70 FR 71612 (2005 Final Rule) both indicate that it is EPA's policy that the nonattainment major modification calculations is a two step process and that EPA was not taking action to implement the provision of CAA Section 182(c).
    - 2002 Final Rule: "We have revised the definition of major modification to clarify what has always been our policy—that determining whether a major modification has occurred is a two-step process. The new definition of major modification is "any physical change in or change in the method of operation of a major stationary source that would result in: (1) A significant emissions increase of a regulated NSR pollutant; and (2) a significant net emissions increase of that pollutant from the major stationary source."
    - 2005 Final Rule: "We are not taking final action to implement the special modification provisions at CAA sections 182(c), (d), and (e) for serious, severe, and extreme ozone nonattainment areas at this time."
  - 89 FR 36870 (2024 Proposed Rule), which was the likely basis for inclusion of this language, was withdrawn on June 1, 2025 and EPA is not anticipated to move forward with requiring this language as a minimum State Implementation Plan (SIP) requirement.

RESPONSE: DAQ amended AQR 12.2.1.4(e) to align with AQR 12.3.1.4(e) and 40 CFR Part 52.21(a)(2)(iv)(F), as shown below:

Hybrid Test for Projects That Involve Multiple Types of Emission[~~s~~] Units. A significant emissions increase of a regulated NSR [~~P~~]*p*ollutant is projected to occur if the sum of the emissions [~~increases~~]*differences* for each emission[~~s~~] unit, using the method specified in paragraph (c) or (d) of *this* [~~S~~]*s*ection[~~ 12.2.1.4~~], as applicable with respect to each emission[~~s~~] unit, equals or exceeds the significant amount for that pollutant.

DAQ removed the "de minimis" language (added during the public comment period to satisfy Section 182(c)(6) of the Act) to the definition of "major modification" in paragraph

12.3.2(q). This is based on EPA's withdrawal of the 2024 proposed rule on June 1, 2025 (89 FR 36870).


(q) "Major [M]modification" means any physical change in, or change in the method of operation of, a major [S]stationary [S]source that would result in a significant [E]emissions increase of a regulated NSR pollutant and a significant net [E]emissions increase of that pollutant from the major [S]stationary [S]source. Notwithstanding the definition of "net emissions increase" for purposes of determining whether a project at a major stationary source located in an area designated as nonattainment for ozone per 40 CFR 81.305 would result in a significant net emissions increase for volatile organic compounds (VOCs) or nitrogen oxides, the net emissions increase from the project shall be aggregated with all other net emissions increases from the stationary source that occurred during the last five consecutive calendar years, including the calendar year in which such increase occurred.

Comment Received: 1/30/2026, via email with letter attached
Commentator: John Hewson, West Regional Environmental Manager, Lhoist
john.hewson@lhoist.com

COMMENT: LNA's primary concerns are that the Clark County Air Quality Rule (CCAQR) is not consistent with the federal permitting rule; could make it more difficult for industrial sources in Clark County attainment areas to obtain a construction permit for modifications and expansions; and could provide a disincentive for industrial sources to reduce emissions. Below is a summary of the CCAQR in question, the EPA rule, and the difference between them.

CCAQR 12.2.1.4e

Hybrid Test for Projects That Involve Multiple Types of Emissions Units. A significant emissions increase of a regulated NSR Pollutant is projected to occur if the sum of the *emissions increases* for each emissions unit, using the method specified in paragraph (c) or (d) of Section 12.2.1.4, as applicable with respect to each emissions unit, equals or exceeds the significant amount for that pollutant.

EPA and CCAQR rule 12.3

The 85 FR 74890 (2020 Final Rule), 40 CFR 52.21(2)(iv)(F), and CCAQR 12.3.1.4(f) all indicate that the hybrid test should evaluate the "emissions difference" rather than the "emissions increases."

As EPA notes in the 2020 Final Rule, including emission increases only "has been a source of confusion and uncertainty for both permitting authorities and stakeholders alike." From a legal standpoint the rule says, "The EPA believes that allowing for consideration of both emissions increases and decreases from a project is consistent with congressional intent and for the PSD and NNSR preconstruction permitting program...." EPA goes on to say, "Furthermore, EPA continues to believe that this approach represents sound policy to the extent that it encourages sources to undertake projects that may result in emission decreases that might not otherwise occur or could be delayed." LNA would add that including emission increases only could discourage expansion projects at major industrial sources that would benefit Clark County and its citizens.

RESPONSE: DAQ amended AQR 12.2.1.4(e) to align with AQR 12.3.1.4(e) and 40 CFR Part 52.21(a)(2)(iv)(F), as shown below:

Hybrid Test for Projects That Involve Multiple Types of Emission[~~s~~] Units. A significant emissions increase of a regulated NSR [~~P~~]*p*ollutant is projected to occur if the sum of the emissions [~~increases~~]*differences* for each emission[~~s~~] unit, using the method specified in paragraph (c) or (d) of *this* [~~S~~]*s*ection[~~ 12.2.1.4~~], as applicable with respect to each emission[~~s~~] unit, equals or exceeds the significant amount for that pollutant.

ATTACHMENT 1

See the following charts for the insignificant activity emissions calculations for AQR 12.5.2.5(c).

AQRs 12.5.2.5(c)(1), (4), and (5)
Calculations for emission units combusting diesel, natural gas, or propane at heat input capacities of less than 1 MMBtu/hr and subject to AQR 12.5.2.5(c) include those for: (1) boilers and water heaters; (4) heat exchangers or water heaters; and (5) gas-fired space heaters and ovens.

EU#:				Emission Factor (lb/mmBtu)	Potential Emissions		
Make:					lb/hr	lb/day	ton/yr
Model:			PM10	0.0236	0.02	0.57	0.10
S/N:			PM2.5	0.0152	0.02	0.36	0.07
			NOx	0.1429	0.14	3.43	0.63
1.00	mmBtu/hr		CO	0.0357	0.04	0.86	0.16
24.0	hr/day		SO_2	1.50E-03	0.01	0.04	0.01
8760	hr/yr		VOC	0.0024	0.01	0.06	0.01
			HAP	6.00E-04	0.01	0.01	0.01
Concentrations:		%O2	Lead	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	ppm NOx	3.0					
	ppm CO	3.0					
Fuel:	Diesel						

EU#:				Emission Factor (lb/mmBtu)	Potential Emissions		
Make:					lb/hr	lb/day	ton/yr
Model:			PM10	0.0075	0.01	0.18	0.03
S/N:			PM2.5	0.0075	0.01	0.18	0.03
			NOx	0.098	0.10	2.35	0.43
1.00	mmBtu/hr		CO	0.0824	0.08	1.98	0.36
24.0	hr/day		SO_2	6.00E-04	0.01	0.01	0.01
8760	hr/yr		VOC	0.0054	0.01	0.13	0.02
			HAP	1.900E-03	0.01	0.05	0.01
Concentrations:		%O2	Lead	4.90E-07	4.90E-07	1.18E-05	2.15E-06
	ppm NOx	3.0					
	ppm CO	3.0					
Fuel:	Natural Gas						

EU#:				Emission Factor (lb/mmBtu)	Potential Emissions		
Make:					lb/hr	lb/day	ton/yr
Model:			PM10	0.0077	0.01	0.18	0.03
S/N:			PM2.5	0.0077	0.01	0.18	0.03
			NOx	0.1421	0.14	3.41	0.62
1.00	mmBtu/hr		CO	0.082	0.08	1.97	0.36
24.0	hr/day		SO_2	1.61E-02	0.02	0.39	0.07
8760	hr/yr		VOC	0.0109	0.01	0.26	0.05
			HAP	3.016E-05	0.01	0.01	0.01
Concentrations:		%O2	Lead	7.31E-10	7.31E-10	1.75E-08	3.20E-09
	ppm NOx	3.0					
	ppm CO	3.0					
Fuel:	Propane						

AQR 12.5.2.5(c)(2)

Calculation for non-industrial cooling towers with recirculation capacities of less than 1,000 gal/minute and drift loss ratings of 0.05% or less, which are emission units subject to AQR 12.5.2.5(c)(2). Common drift loss percentages provided by manufacturers are between 0.001–0.005%, so using 0.05% reflects a very conservative estimate. DAQ expects much lower emissions in practice.

EU	Description	Drift Loss % (1)	Flow Rate (gal/min)	TDS (mg/l)	Hours of Operation		PM10 Emissions		PM2.5 Emissions	
					hr/day	hr/yr	lb/hr	ton/yr	lb/hr	ton/yr
	cooling tower	0.05%	1000	3000	24	8760	0.35	1.55	0.35	1.55
							0.35	**1.55**	**0.35**	**1.55**

AQR 12.5.2.5(c)(3)

Calculations for internal combustion emergency engines rated at less than 35 hp and operating on #2 fuel oil, gasoline, liquefied petroleum gas, or natural gas, which are subject to AQR 12.5.2.5(c)(3).

EU#		Horsepower:	35		Emission Factor	Control	Potential Emissions		
Make:		Hours/Day:	24.0		(lb/hp-hr)	Efficiency	lb/hr	lb/day	ton/yr
Model:		Hours/Year	500	PM10	7.21E-04	0.00%	0.03	0.61	0.01
S/N:				NOx	1.10E-02	0.00%	0.39	9.24	0.10
				CO	6.96E-03	0.00%	0.24	5.85	0.06
Manufacturer Guarantees				SO_2	5.91E-04	0.00%	0.02	0.50	0.01
PM10	g/kW-hr			VOC	2.16E-02	0.00%	0.76	18.14	0.19
NOx	g/kW-hr			HAP	2.16E-02	0.00%	0.76	18.14	0.19
CO	g/kW-hr								
SO_2	g/kW-hr								
VOC	g/kW-hr								
Engine Type:	Gasoline			Diesel Fuel Sulfur Content is 15 ppm (0.0015%)					

EU#		Horsepower:	35		Emission Factor	Control	Potential Emissions		
Make:		Hours/Day:	24.0		(lb/hp-hr)	Efficiency	lb/hr	lb/day	ton/yr
Model:		Hours/Year	500	PM10	2.20E-03	0.00%	0.08	1.85	0.02
S/N:				NOx	3.10E-02	0.00%	1.09	26.04	0.27
				CO	6.68E-03	0.00%	0.23	5.61	0.06
Manufacturer Guarantees				SO_2	1.21E-05	0.00%	0.01	0.01	0.01
PM10	g/kW-hr			VOC	2.51E-03	0.00%	0.09	2.11	0.02
NOx	g/kW-hr			HAP	2.71E-05	0.00%	0.01	0.02	0.01
CO	g/kW-hr								
SO_2	g/kW-hr								
VOC	g/kW-hr								
Engine Type:	Diesel			Diesel Fuel Sulfur Content is 15 ppm (0.0015%)					

EU#		Horsepower:	35		Emission Factor	Control	Potential Emissions		
Make:		Btu/hp-hr:	10,180		(lb/hp-hr)	Efficiency	lb/hr	lb/day	ton/yr
Model:		Hours/Day:	24.0	PM10	4.92E-04	0.00%	0.02	0.41	0.01
S/N:		Hours/Year	500	PM2.5	4.92E-04	0.00%	0.02	0.41	0.01
				NOx	3.23E-02	0.00%	1.13	27.11	0.28
Manufacturer Guarantees				CO	3.93E-03	0.00%	0.14	3.30	0.03
PM10	g/hp-hr			SO_2	5.99E-06	0.00%	0.01	0.01	0.01
NOx	g/hp-hr			VOC	1.22E-03	0.00%	0.04	1.03	0.01
CO	g/hp-hr			HAP	8.11E-04	0.00%	0.03	0.68	0.01
SO_2	g/hp-hr								
VOC	g/hp-hr			Fuel Type:	Natural Gas			Consumption	scf/hr
Engine Type:	2-Stroke Lean Burn			If fuel consumption is not available, default fuel efficiency = 25% (i.e. use default value for Btu/hp-hr)					

EU#		**Horsepower:**	35
Make:		**Btu/hp-hr:**	10,180
Model:		**Hours/Day:**	24.0
S/N:		**Hours/Year**	500

Manufacturer Guarantees

PM10		g/hp-hr
NOx		g/hp-hr
CO		g/hp-hr
SO_2		g/hp-hr
VOC		g/hp-hr

Engine Type: 4-Stroke Lean Burn

	Emission Factor (lb/hp-hr)	Control Efficiency	Potential Emissions lb/hr	lb/day	ton/yr
PM10	1.02E-04	0.00%	0.01	0.09	0.01
PM2.5	1.02E-04	0.00%	0.01	0.09	0.01
NOx	4.15E-02	0.00%	1.45	34.89	0.36
CO	5.67E-03	0.00%	0.20	4.76	0.05
SO_2	5.99E-06	0.00%	0.01	0.01	0.01
VOC	1.20E-03	0.00%	0.04	1.01	0.01
HAP	7.35E-04	0.00%	0.03	0.62	0.01

Fuel Type: Natural Gas _____ **Consumption** scf/hr

If fuel consumption is not available, default fuel efficiency = 25%
(i.e. use default value for Btu/hp-hr)

EU#		**Horsepower:**	35
Make:		**Btu/hp-hr:**	10,180
Model:		**Hours/Day:**	24.0
S/N:		**Hours/Year**	500

Manufacturer Guarantees

PM10		g/hp-hr
NOx		g/hp-hr
CO		g/hp-hr
SO_2		g/hp-hr
VOC		g/hp-hr

Engine Type: 4-Stroke Rich Burn

	Emission Factor (lb/hp-hr)	Control Efficiency	Potential Emissions lb/hr	lb/day	ton/yr
PM10	1.98E-04	0.00%	0.01	0.17	0.01
PM2.5	1.98E-04	0.00%	0.01	0.17	0.01
NOx	2.31E-02	0.00%	0.81	19.41	0.20
CO	3.79E-02	0.00%	1.33	31.81	0.33
SO_2	5.99E-06	0.00%	0.01	0.01	0.01
VOC	3.01E-04	0.00%	0.01	0.25	0.01
HAP	3.30E-04	0.00%	0.01	0.28	0.01

Fuel Type: Natural Gas _____ **Consumption** scf/hr

If fuel consumption is not available, default fuel efficiency = 25%
(i.e. use default value for Btu/hp-hr)

EU#		**Horsepower:**	35
Make:		**Btu/hp-hr:**	10,180
Model:		**Hours/Day:**	24.0
S/N:		**Hours/Year**	500

Manufacturer Guarantees

PM10		g/hp-hr
NOx		g/hp-hr
CO		g/hp-hr
SO_2		g/hp-hr
VOC		g/hp-hr

Engine Type: Unknown

	Emission Factor (lb/hp-hr)	Control Efficiency	Potential Emissions lb/hr	lb/day	ton/yr
PM10	4.92E-04	0.00%	0.02	0.41	0.01
PM2.5	4.92E-04	0.00%	0.02	0.41	0.01
NOx	4.15E-02	0.00%	1.45	34.89	0.36
CO	3.79E-02	0.00%	1.33	31.81	0.33
SO_2	5.99E-06	0.00%	0.01	0.01	0.01
VOC	1.22E-03	0.00%	0.04	1.03	0.01
HAP	8.11E-04	0.00%	0.03	0.68	0.01

Fuel Type: Natural Gas _____ **Consumption** scf/hr

If fuel consumption is not available, default fuel efficiency = 25%
(i.e. use default value for Btu/hp-hr)

EU#		**Horsepower:**	35
Make:		**Btu/hp-hr:**	10,180
Model:		**Hours/Day:**	24.0
S/N:		**Hours/Year**	500

Manufacturer Guarantees

PM10		g/hp-hr
NOx		g/hp-hr
CO		g/hp-hr
SO_2		g/hp-hr
VOC		g/hp-hr

Engine Type: 2-Stroke Lean Burn

	Emission Factor (lb/hp-hr)	Control Efficiency	Potential Emissions lb/hr	lb/day	ton/yr
PM10	4.92E-04	0.00%	0.02	0.41	0.01
PM2.5	4.92E-04	0.00%	0.02	0.41	0.01
NOx	3.23E-02	0.00%	1.13	27.11	0.28
CO	3.93E-03	0.00%	0.14	3.30	0.03
SO_2	5.99E-06	0.00%	0.01	0.01	0.01
VOC	1.22E-03	0.00%	0.04	1.03	0.01
HAP	8.11E-04	0.00%	0.03	0.68	0.01

Fuel Type: Propane _____ **Consumption** scf/hr

If fuel consumption is not available, default fuel efficiency = 25%
(i.e. use default value for Btu/hp-hr)

EU#		**Horsepower:**	35		**Emission Factor (lb/hp-hr)**	**Control Efficiency**	**Potential Emissions**		
Make:		**Btu/hp-hr:**	10,180				**lb/hr**	**lb/day**	**ton/yr**
Model:		**Hours/Day:**	24.0	**PM10**	1.02E-04	0.00%	0.01	0.09	0.01
S/N:		**Hours/Year**	500	**PM2.5**	1.02E-04	0.00%	0.01	0.09	0.01
				NOx	4.15E-02	0.00%	1.45	34.89	0.36
Manufacturer Guarantees				**CO**	5.67E-03	0.00%	0.20	4.76	0.05
PM10		g/hp-hr		**SO_2**	5.99E-06	0.00%	0.01	0.01	0.01
NOx		g/hp-hr		**VOC**	1.20E-03	0.00%	0.04	1.01	0.01
CO		g/hp-hr		**HAP**	7.35E-04	0.00%	0.03	0.62	0.01
SO_2		g/hp-hr							
VOC		g/hp-hr		**Fuel Type:**	Propane			**Consumption** scf/hr	
Engine Type:	4-Stroke Lean Burn			If fuel consumption is not available, default fuel efficiency = 25%					
				(i.e. use default value for Btu/hp-hr)					

AQR 12.5.2.5(c)(4)

Calculations for indirect heat exchangers or water heaters combusting refinery fuel gas and rated at less than 35 hp, which are emissions units subject to AQR 12.5.2.5(c)(4).

EU#:				**Emission Factor (lb/mmBtu)**	**Potential Emissions**		
Make:					**lb/hr**	**lb/day**	**ton/yr**
Model:			**PM10**	0.0075	0.01	0.18	0.03
S/N:			**PM2.5**	0.0075	0.01	0.18	0.03
			NOx	0.0980	0.10	2.35	0.43
1.00	mmBtu/hr		**CO**	0.0824	0.08	1.98	0.36
24.0	hr/day		**SO_2**	2.79E-02	0.03	0.67	0.12
8760	hr/yr		**VOC**	0.0054	0.01	0.13	0.02
			HAP	1.90E-03	0.01	0.05	0.01
Concentrations:		**%O2**	**Lead**	4.90E-07	4.90E-07	1.18E-05	2.15E-06
	ppm NOx	3.0					
	ppm CO	3.0					
Fuel:	Refinery Gas						

EU#:				**Emission Factor (lb/mmBtu)**	**Potential Emissions**		
Make:					**lb/hr**	**lb/day**	**ton/yr**
Model:			**PM10**	0.0077	0.01	0.18	0.03
S/N:			**PM2.5**	0.0077	0.01	0.18	0.03
			NOx	0.1421	0.14	3.41	0.62
1.00	mmBtu/hr		**CO**	0.082	0.08	1.97	0.36
24.0	hr/day		**SO_2**	1.61E-02	0.02	0.39	0.07
8760	hr/yr		**VOC**	0.0109	0.01	0.26	0.05
			HAP	3.016E-05	0.01	0.01	0.01
Concentrations:		**%O2**	**Lead**	7.31E-10	7.31E-10	1.75E-08	3.20E-09
	ppm NOx	3.0					
	ppm CO	3.0					
Fuel:	Propane						

AQR 12.5.2.5(c)(6)
Explanation of methodology for ancillary woodworking operations that are activities subject to AQR 12.5.2.5(c)(6).

Ancillary woodworking operations for maintenance, repair, educational purposes, or as part of a minor construction or research-related activity should be considered insignificant under AQR 12.5. These activities do not involve combustion or chemical processes, and the only pollutant of concern is particulate matter (PM_{10} and $PM_{2.5}$). EPA AP-42, Appendix B.2 indicates that mechanically generated aggregates are composed primarily of large-diameter particles. Wood dust generated from ancillary woodworking operations is consistent with this description. These particles are relatively heavy, settle rapidly, and are typically captured by shop-maintenance equipment (e.g., shrouds, vacuums, dust collectors) as part of normal workplace safety practices. Because the material does not remain entrained in the air for extended periods, it does not exit the building ventilation system in significant quantities. Any potential PM_{10} and $PM_{2.5}$ emissions are de minimis. In addition, these activities are ancillary to the facility's primary operations, so they occur intermittently, further reducing potential emissions. Examples of sources engaging in this activity are hotels and casinos, high schools, colleges, and military bases.

AQRs 12.5.2.5(c)(7) and (8)
Calculations for ancillary parts washers and degreasers using only certified clean air solvents, which are emissions units subject to AQR 12.5.2.5(c)(7), AQR 12.5.2.5(c)(8), and AQRs 104 and 105 in HA 212.

Per the definition of "certified clean air solvents" in AQRs 0 and 12.1, the maximum VOC content is 0.21 lb VOC/gal. Per AQRs 104 and 105 (CTG RACT), sources must use less than 500 gal of VOC-containing material to be exempt.

500 gal/yr x 0.21 lb VOC/gal = 105 lb VOC/yr = 0.05 tpy VOC

In areas where AQRs 104 or 105 are not applicable, a source would have to use over 19,000 gal/yr to emit 2 tpy of VOC, at which point the activity would not be considered ancillary.

AQR 12.5.2.5(c)(9)
Calculations for tanks, reservoirs, or containers with capacities of less than 40,000 gal containing petroleum liquids with true vapor pressures of 1.5 psia or less, which are emissions units subject to AQR 12.5.2.5(c)(9).

Worst-case parameters were used in the calculations including jet kerosene (Jet A), which has the highest vapor pressure yet is still less than 1.5 psia; vertical tanks and fixed tanks, which have higher emissions than horizontal and floating tanks; and the color black.

Tank	Type	Color (Shell/Roof)	Throughput (gal/yr)	Turnovers per year	Annual Total Loss VOC (tons/yr)
1	Vertical Fixed Tank - Skinny	Black	800,000.00	20	**0.04**
2	Vertical Fixed Tank - Fat	Black	800,000.00	20	**0.04**

Tank	Type	Color (Shell/Roof)	Throughput (gal/yr)	Turnovers per year	Annual Total Loss VOC (tons/yr)
1	Vertical Fixed Tank - Skinny	Black	2,080,000.00	52	**0.05**
2	Vertical Fixed Tank - Fat	Black	2,080,000.00	52	**0.06**

END