



PART 70

TECHNICAL SUPPORT DOCUMENT

(STATEMENT of BASIS)

APPLICATION FOR:
Minor Revision

PREPARED BY:
Trinity Consultants
For
Nevada Power Company

Source Name: Harry Allen Generating Station
Source ID: 00533

SOURCE LOCATION:
14601 North Las Vegas Boulevard
North Las Vegas, Nevada 89165

SIC 4911: Electric Services
NAICS Code 221112: Fossil Fuel Electric Power Generation

TSD Date: October 8, 2026

EXECUTIVE SUMMARY

Harry Allen Generating Station is an electrical power generating station that falls under SIC Code 4911, “Electrical Services” and NAICS Code 221112, “Fossil-Fueled Electric power Generation.” The facility is located in Hydrographic Area 216 (Garnet Valley), which is designated as attainment for all regulated pollutants. The source is classified as a categorical source in accordance with AQR 12.2.2(j)(1): “Fossil-fueled steam electric plants of more than 250 MMBtu/hr heat input.”

Harry Allen Generating Station consists of combustion turbines (both simple cycle and combined cycle), HRSG duct burners, diesel-powered emergency generators and a diesel-powered fire pump. Also located on-site are a wet surface air cooler and an aboveground ammonia storage tank which are classified as insignificant activities. The source is a major stationary source for PM₁₀, PM_{2.5}, NO_x, and CO pollutants and a minor source for SO₂, VOC, and HAP. It is also a source of GHG pollutants. The source is subject to the requirements of 40 CFR Part 60, Subparts GG, IIII, and KKKK, 40 CFR Part 63, Subpart ZZZZ, 40 CFR Part 72, and 40 CFR Part 75. By complying with the requirements of 40 CFR Part 60, Subpart IIII, the diesel-powered fire pump will also meet 40 CFR Part 63, Subpart ZZZZ requirements.

A renewal of the Part 70 operating permit was issued to Harry Allen Generating Station by The Clark County Department of Environment and Sustainability, Division of Air Quality on October 29, 2020. The permittee submitted subsequent Title V applications for a significant revision on January 12, 2022 and July 6, 2022. This permitting action is based on each of the aforementioned revisions and the renewal application submitted on April 3, 2025.

DAQ will continue to require the permittee to estimate GHG emissions in terms of each individual pollutant (CO₂, CH₄, N₂O, SF₆ etc.) during subsequent permitting actions will include these PTEs for informational purposes.

Pursuant to AQR 12.5.2, all terms and conditions in Sections 1 through 11 of this operating permit are federally enforceable unless explicitly denoted otherwise.

Table 1 summarizes the source PTE for each regulated air pollutant for all emission units addressed by this Part 70 Operating Permit.

Table 1. Source PTE (tons per year)

Description	PM ₁₀	PM _{2.5}	NO _x	CO	SO ₂	VOC	HAPs	GHG ¹
Part 70 OP PTE	150.75	150.75	304.62	277.82	14.10	64.85	6.51	2,398,807.27
Major Source Thresholds (Title V)	100	100	100	100	100	100	10/25 ²	-
Major Stationary Source Thresholds (PSD) (Categorical)	100	100	100	100	100	100	10/25 ²	-
¹ Expressed in units of CO ₂ e								
² 10 tons for any individual hazardous air pollutant, or 25 tons for the combination of all hazardous air pollutants.								

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ACRONYMS AND ABBREVIATIONS

AQR	Clark County Air Quality Regulation
ATC	authority to construct
BACT	Best Available Control Technology
BAE	baseline actual emissions
CEMS	continuous emissions monitoring system
CHA	could have accommodated
CFR	Code of Federal Regulations
CH ₄	methane
CO	carbon monoxide
CO ₂ e	carbon dioxide equivalent
DAQ	Division of Air Quality
DES	Clark County Department of Environment and Sustainability
DLN	dry low NO _x
EPA	U.S. Environmental Protection Agency
EU	emission unit
GHG	greenhouse gas
GWP	global warming potential
HAGS	Harry Allen Generating Station
HAP	hazardous air pollutant
H ₂ S	hydrogen sulfide
hp	horsepower
MMBtu	British thermal units (in millions)
MW	megawatt
N ₂ O	nitrous oxide
NAICS	North American Industry Classification System
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO _x	nitrogen oxide(s)
NSPS	New Source Performance Standard
O&M	operations and maintenance
PAE	projected actual emissions
Pb	lead
PM _{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
PM ₁₀	particulate matter less than 10 microns in aerodynamic diameter
ppm	parts per million
PTE	potential to emit
RACT	Reasonably Available Control Technology
RATA	relative accuracy test audit
SCR	selective catalyst reduction
SIC	Standard Industrial Classification
SO ₂	sulfur dioxide
TSD	technical support document
ULN	ultra low NO _x
VOC	volatile organic compound

I. PROCESS DESCRIPTION

Harry Allen Generating Station operates four natural gas-fired combustion turbines which generate electricity. The two 206 MW turbines are combined cycle units, each operating in unison with heat recovery steam generators with natural gas-fired duct burners rated at 173 MMBtu/hr. The remaining two turbines are simple cycle units rated at 75 MW and 79.02 MW. Other emission units consist of two diesel-powered emergency generators and a diesel-powered fire pump.

II. PERMITTING HISTORY

The Title V operating permit for Harry Allen Generating Station was last renewed on November 13, 2025, and will expire on November 12, 2030.

Current Permitting Action

On April 29, 2026, NV Energy submitted a seven-day notification letter for a permit change that doesn't require a permit revision. This was done in accordance with AQR 12.5.12(a). The change the permittee requested was to install a software package, designated as Peak Fire System, that will allow each of the natural gas-fired turbine/HRSG combinations (EUs: A01/A03 and A02/A04) to temporarily operate at a higher temperature. By operating at a higher temperature, the megawatt output can be increased, thus allowing the source to meet peak electricity demands during summer months.

The permittee clarified the software upgrade will not impact any facet of the current operating permit. The maximum heat input capacity of the turbines, along with annual natural gas consumption, will remain unchanged. Since fuel consumption will not increase, there is no impact to annual source-wide PTE for all regulated pollutants. The permittee claimed that minimal increases to short-term emissions is controlled by SCR and oxidation catalyst controls. In addition, the source operates a CEMS, which will ensure continuous compliance with NO_x and CO emission limitations. The requested revision will have no bearing on the current monitoring and recordkeeping requirements of the operating permit.

Following a review of the notification letter, a rejection letter was sent to the permittee on May 7, 2026. The letter stated that DAQ had determined that increasing the operating temperature of the turbines constituted a change to the method of operation. The permittee was informed that changing a method of operation does not meet the criteria defined in AQR 12.5.2.12. As a result, it would be necessary to submit a minor revision application.

The permittee subsequently submitted a minor revision application on May 12, 2026. This application reiterated that the Peak Fire software upgrade is not expected to impact source PTE because there will be no increase in the permitted fuel consumption limitations. The application also included PSD applicability calculations for baseline actual emissions (BAE) and projected actual emissions (PAE) which demonstrated that the only increase in emissions was for CO, estimated to be 0.82 tons per year. The two-year baseline period used was from February 1, 2021, through January 1, 2023. These calculations also confirmed that the PSD significant thresholds, defined in AQR 12.2.2(uu) are not exceeded.

The permittee also included "Could Have Accommodated" (CHA) emissions as part of the BAE. CHA is determined by selecting the month within the baseline period with the maximum fuel usage, then multiplying that value by 12 months. Also known as Demand Growth Exclusion, it

allows the permittee to subtract emission increases caused by general market demand rather than a specific physical plant modification. It applies when calculating projected actual emissions under the EPA New Source Review permitting. In order to use this exclusion, the emission unit must have been physically and legally capable of handling that increased utilization during the chosen baseline period. This exclusion is allowed under AQR 12.2.2(nn)(1)(D).

DAQ reviewed the minor revision application and determined that the installation of the Peak Fire software does not meet the definition of a modification. It should also be noted that the CHA was not a factor in the decision to categorize this as a minor permit revision.

Due to the fact that the Peak Fire software has no impact on the permitted emission units, operational limitations, and established requirements for controls, compliance demonstration, testing, recordkeeping, and reporting, these sections are not included with this document.

Changes Not Requested in the Application

During the drafting of the renewal permit for Harry Allen Generating Station (issued November 13, 2025) requirements for 40 CFR Part 60, Subpart TTTT, “Standards of Performance for Greenhouse Gas Emissions for Electric Utility Generating Units” were erroneously added to the operating permit. Based on the applicability dates for construction, reconstruction, and modification of steam generating units defined in §60.5508, the DAQ staff member who drafted the permit mistakenly concluded that the source became subject to this CFR when the turbine upgrade project was completed on March 20, 2023.

Further investigation, conducted during the current permitting action, concluded that the source is not subject to Subpart TTTT pursuant to §60.5509(b)(7), which grants an exclusion for modifications that result in an emission increase of less than 10 percent for CO₂ emissions.

A comparison was made between the source PTE for GHG pollutants calculated for the renewal permit, issued October 29, 2020 (pre turbine upgrade), and the significant revision permit, issued October 25, 2022 (turbine upgrade). The source-wide GHG (CO₂e) emissions identified for these two permits are identical. Therefore, it can be reasonably concluded that the CO₂ emissions must also be identical. As a result, the source meets the exclusion criteria §60.5509(b)(7) following the turbine upgrade project. All references to 40 CFR Part 60, Subpart TTTT have been removed from the operating permit.

The following permit conditions pertaining to emergency generators subject to 40 CFR Part 63, Subpart ZZZZ were added to the operating permit:

1. Condition 2.2.9 allows an option for the permittee to conduct an oil analysis to extend the specified oil change requirement.
2. Condition 2.2.10 establishes time frames for engine idling.

Additionally, the nonroad engine language in Section 1.3 of the permit has been updated to the current standard language.