### **SEPA** ENVIRONMENTAL CHECKLIST

#### Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

#### Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. <u>You may use "not applicable" or</u> <u>"does not apply" only when you can explain why it does not apply and not when the answer is unknown</u>. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to <u>all parts of your proposal</u>, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

#### Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

#### Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the <u>SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D)</u>. Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

#### A. Background [HELP]

1. Name of proposed project, if applicable: *Jubilant HollisterStier (JHS) Fill Line 3 Expansion* 

2. Name of applicant:

DCI Engineers/Wade Gelhausen, P.E.

SEPA Environmental checklist (WAC 197-11-960)

3. Address and phone number of applicant and contact person: 4. Date checklist prepared: August 4, 2021

5. Agency requesting checklist: City of Spokane

707 W 2<sup>nd</sup> Ave. Spokane, WA 98201 (509) 455-4448

Location of Project: Spokane, WA Address: 3525 N Regal St Section: 04 Quarter: 4 SE Township: 25 Range: 43 Tax Parcel Number(s) 35044.0927

Proposed timing or schedule (including phasing, if applicable):

#### Construction of the project is anticipated to start in the Fall 2021/2022.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

#### None known.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

#### A Geotechnical engineering study will be prepared for the project.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

#### None known.

10. List any government approvals or permits that will be needed for your proposal, if known.

- Grading Permit
- Mechanical Permits
- Utility Permits
- Building Permits
- Electrical Permits
- Generator Permit

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The project proposes a new two-story addition (51,186 gsf) to the west side of the existing Jubilant HollisterStier building for expanding their pharmaceutical manufacturing processes on the campus. This expansion requires an extension to the pavement apron north of the expansion, as well as repaying portions of the existing

pavement surrounding the expansion. The project also includes the installation of a new standby diesel generator on the site. The size is 1500KW with 24-hourr sub-base fuel tank, type 2 sound attenuated enclosure, and Tier-2 emission level. See specification cut-sheet attached.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

### The Jubilant HollisterStier campus is located at 3525 N Regal Street in Spokane, WA 99207. It is located east of N Cook St. and south of E Gordon Ave.



13. Does the proposed action lie within the Aquifer Sensitive Area (ASA)? The General Sewer Service Area? The Priority Sewer Service Area? The City of Spokane? (See: Spokane County's ASA Overlay Zone Atlas for boundaries.)

### The proposed project lies within the Aquifer Sensitive Area (ASA), General Sewer Service Area, and the City of Spokane.

- 14. The following questions supplement Part A.
  - a. Critical Aquifer Recharge Area (CARA) / Aquifer Sensitive Area (ASA)

(1) Describe any systems, other than those designed for the disposal of sanitary waste, installed for the purpose of discharging fluids below the ground surface (includes systems such as those for the disposal of stormwater or drainage from floor drains). Describe the type of system, the amount of material to be disposed of through the system and the types of material likely to be disposed of (including materials which may enter the system inadvertently through spills or as a result of firefighting activities).

There is an existing stormwater treatment system on-site that will continue to serve the completed project. Any new impervious surfaces (pollutiongenerating or nonpollution-generating) added to the site for the project will have corresponding, appropriately designed storm water facilities constructed for these areas.

(2) Will any chemicals (especially organic solvents or petroleum fuels) be stored in aboveground or underground storage tanks? If so, what types and quantities of material will be stored?

### *Diesel fuel (2,750 gallons) will be stored above ground in the proposed emergency generator set sub-base fuel tank.*

(3) What protective measures will be taken to ensure that leaks or spills of any chemicals stored or used on site will not be allowed to percolate to groundwater. This includes measures to keep chemicals out of disposal systems.

### The emergency generator set comes with a double walled tank for the diesel fuel.

(4) Will any chemicals be stored, handled or used on the site in a location where a spill or leak will drain to surface or groundwater or to a stormwater disposal system discharging to surface or groundwater?

### Diesel will be stored in the emergency generator sub-base fuel tank that is double-walled.

- b. Stormwater
- (1) What are the depths on the site to groundwater and to bedrock (if known)?

#### Depth to groundwater onsite is estimated to be greater than 50-ft.

(2) Will stormwater be discharged into the ground? If so, describe any potential impacts?

Stormwater will be discharge into the ground via drywells. The site stormwater system has been designed per the Spokane Regional Stormwater Manual requirements and has no significant impacts to the surrounding area. Any required new storm water facilitites designed as part of this project will

#### B. Environmental Elements [HELP]

#### 1. Earth [help]

a. General description of the site:

(circle one): (Flat,)rolling, hilly, steep slopes, mountainous, other \_\_\_\_\_

b. What is the steepest slope on the site (approximate percent slope)?

### The steepest slope on site is approximately 4%, with a majority of the site sloping between 1% and 2%.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

## According to the NRCS Web Soil Survey, the project property is underlain with extremely gravelly loam soils. This information will be verified when the geotechnical report is received for the project.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

### To our knowledge, there are no surface indications or history of unstable soils in the immediate vicinity.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

#### Minor earthwork cut will be necessary for the pavement expansion north of the addition due to the existing grades being slighty higher than the existing pavement area. It is not anticipated that much, if any, fill will be necessary.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

*Erosion could occur as a result of clearing and construction grading. However, the site is relatively flat and all proposed construction activity will have an erosion control plan designed for it that the contractor will need to follow to prevent erosion from occurring.* 

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

The amount of impervious surface on the property's develoed area will be approximately 90%. About 25% of the property remains undeveloped on the west side of the property.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Implementation of an approved erosion control plan during construction including water runoff and sediment barriers (silt fencing, construction entrance(s), temporary sediment ponds, etc.). Long term erosion will be controlled by bio-infiltration swales and drywells anticipated to be constructed to manage storm water for the project.

#### 2. Air [help]

a. What types of emissions to the air would result from the proposal during construction. operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

# The emissions from the site will be from general construction activities. The proposed project will result in a slight increase of vehicular traffic to and from the site. Intermittent diesel emissions to the air will result from the proposed emergency generator set to be installed.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

### We do not believe that there will be any off-site sources of emissions or odor that affect the proposal.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

## Dust control measures for earthwork will be implemented during construction. Regular maintenance of construction equipment will also be required. Operation of the generator set will be limited to emergency use.

- 3. Water [help]
- a. Surface Water: [help]
  - 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

#### There is no surface water body on or in the immediate vicinity of the site.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

#### None.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

#### None.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

#### None.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

#### The proposal does not lie within a 100-year floodplain.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

#### No, the project doesn't discharge any waste materials to surface waters.

- b. Ground Water: [help]
  - 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

#### The project doesn't plan to withdraw any groundwater.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

#### The project doesn't plan to discharge any waste material into the ground.

- c. Water runoff (including stormwater):
  - Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Stormwater runoff from the pollution generating impervious surfaces (PGIS) constructed on the site will be treated by bio-infiltration swales and infiltrated through the bottom of the swales and drywells. Runoff from any non-pollution generating impervious surface (NPGIS) will be infiltrated directly into the ground via drywells.

2) Could waste materials enter ground or surface waters? If so, generally describe.

We do not believe that waste materials could enter the ground or surface waters. Any waste materials on the project site (automobile oils, spills, leaks, etc.) will drain to on-site bio-infiltration swales for treatment prior to discharging into the ground.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

## This project proposal will not affect drainage patterns in the vicinity of the site. The proposed development of the property will provide for continuation of existing drainage patterns through the property.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

#### None.

#### 4. Plants [help]

- a. Check the types of vegetation found on the site:
  - <u>x</u> deciduous tree: alder, maple, aspen, other
  - <u>x</u> evergreen tree: fir, cedar, pine, other
  - shrubs
  - <u>x</u> grass
  - \_\_\_\_ pasture
  - \_\_\_\_ crop or grain
  - \_\_\_\_\_ orchards, vineyards or other permanent crops.
  - wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
  - \_\_\_\_\_ water plants: water lily, eelgrass, milfoil, other
  - \_\_\_\_\_ other types of vegetation
- b. What kind and amount of vegetation will be removed or altered?

#### Some dryland grasses located in the undeveloped area will be removed.

c. List threatened and endangered species known to be on or near the site.

#### We do not know of any threatened or endangered species on or near the site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

### Landscaping meeting the requirements of the City of Spokane will be implemented as part of the project.

e. List all noxious weeds and invasive species known to be on or near the site.

#### We do not know of noxious weeds or invasive species on the site.

#### 5. Animals [help]

a. <u>List</u> any birds and <u>other</u> animals which have been observed on or near the site or are known to be on or near the site.

Examples include:

birds: hawk heron, eagle, songbirds other: mammals: deer, bear, elk, beaver, other: fish: bass, salmon, trout, herring, shellfish, other \_\_\_\_\_

b. List any threatened and endangered species known to be on or near the site.

#### We do not know of any endangered or threatened species on or near the site.

c. Is the site part of a migration route? If so, explain.

#### We are not aware of this site being part of a migration route.

d. Proposed measures to preserve or enhance wildlife, if any:

#### There are currently no anticipated measures in place to preserve or enhance wildlife.

e. List any invasive animal species known to be on or near the site.

#### We do not know of any invasive animal species on near the site.

#### 6. Energy and Natural Resources [help]

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

*Electricity and natural gas are anticipated to be the primary sources of energy for the addition. During operation, these energy sources will be used for site lighting and building lighting, heating, and cooling. A new diesel generator will be installed for emergency back up power.* 

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

### We do not believe the project will have adverse effects for solar use of adjacent properties.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

### We anticipate that the addition will have energy efficient lighting, windows, and other building materials for energy conservation features.

#### 7. Environmental Health [help]

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

#### There are currently no known health hazards that could occur as a result of this project.

1) Describe any known or possible contamination at the site from present or past uses.

#### We do not know of any contamination on the site from past or present uses.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

#### We do not know of any existing hazardous chemicals/conditions on the site.

 Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

#### There is a small hazardous waste storage building near the southeast corner of the site.

4) Describe special emergency services that might be required.

#### We do not anticipate the need for special emergency services.

5) Proposed measures to reduce or control environmental health hazards, if any:

No measures are proposed to reduce or control environmental health hazards at this time. However, any health hazards that may be encountered would be removed by a qualified abatement contractor in accordance with State and Federal guidelines. Manufacturer recommended maintenance will be completed to reduce the environmental health hazards of the emergency generator set.

- b. Noise
  - 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

### There is existing noise from the traffic around the site due to the project area being located in a neighborhood.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. In the short term, noise will be generated from general construction of the building addition project. The emergency generator could create noise on a longer-term basis, although it is anticipated that operation of the generator use will be minimal.

3) Proposed measures to reduce or control noise impacts, if any:

#### The proposed project would comply with the City of Spokane Noise Ordinance, specifically that construction hours would be limited to weekdays (non-holidays) from 7AM to 10PM and Saturdays and Sundays from 9AM to 10PM.

#### 8. Land and Shoreline Use [help]

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

## The project property is currently used by Jubilant HolisterStier for pharmaceutical manufacturing processes. The building addition will enhance the current use of the project and not affect current land uses of nearby properties.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

#### To our knowledge, the site has not been used for agriculture.

c. Describe any structures on the site.

#### There are numerous existing structures located on the property including the main Jubilant HollisterStier building, various storage buildings, a hazardous waste storage building, maintenance buildings, and 2 raw materials process buildings.

d. Will any structures be demolished? If so, what?

#### No.

e. What is the current zoning classification of the site?

#### The current zoning classification of the properties is LI (Light Industrial).

f. What is the current comprehensive plan designation of the site?

#### The current comprehensive plan designation for the site is *LI* (*Light Industrial*).

g. If applicable, what is the current shoreline master program designation of the site?

#### There is no shoreline master program designation for this site.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

#### Not to our knowledge.

i. Approximately how many people would reside or work in the completed project?

### It is estimated that there will be approximately 25 people working in the completed project.

j. Approximately how many people would the completed project displace?

#### No people would be displaced by the completion of this project.

k. Proposed measures to avoid or reduce displacement impacts, if any:

#### None.

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

#### None.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

#### None.

#### 9. Housing [help]

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

#### No housing units will be provided.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

#### No housing units would be eliminated by the project.

c. Proposed measures to reduce or control housing impacts, if any:

#### None.

#### 10. Aesthetics [help]

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The tallest height of the proposed structure is approximately 36 feet (to parapet). The principal exterior building material is anticipated to be insulated metal panels (white in color matching the existing structure).

b. What views in the immediate vicinity would be altered or obstructed?

#### No significant views are anticipated to be blocked.

c. Proposed measures to reduce or control aesthetic impacts, if any:

### No measures are currently proposed. The design of the new buildings will be designed to, at a minimum, meet currect IBC and city code requirements.

#### 11. Light and Glare [help]

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

### Minimal light will be produced from the building interiors and site lighting after sundown and before sunup.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

### We do not believe the light or glare from the finished project will be a safety hazard or interfere with views.

c. What existing off-site sources of light or glare may affect your proposal?

#### We do not know of any off-site sources of light or glare that would affect the project.

d. Proposed measures to reduce or control light and glare impacts, if any:

#### None.

#### 12. Recreation [help]

a. What designated and informal recreational opportunities are in the immediate vicinity?

#### Courtland Park, Andrew Rypien Field, Northeast Community Center, and Wildhorse Park are within about a half mile radius of site.

b. Would the proposed project displace any existing recreational uses? If so, describe.

#### No recreation uses would be displaced.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

#### None.

#### 13. Historic and cultural preservation [help]

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

#### None that we know of.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

#### None that we know of.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

#### None.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

### None are proposed at this time. Any discoveries will result in construction halting until further investigation can be completed.

#### 14. Transportation [help]

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

### The project property connects to the existing street system at two locations. Both driveways are connected to N Regal Sreet on the east boundary of the property.



b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

#### The Spokane Transit Authority has two bus stops in the vicinity of the property. Frequent Route 33 runs 2 blocks east of the project site on N Market Ave. and Basic Route 27 runs 2 blocks west of the site on N Crestline Street.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

### Preliminary designs do not plan for additional parking spaces on the site as part of the project. No formal parking spaces will be eliminated with the project.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

### No, there will not be any required improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities.

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

#### No water, rail, or air transportation will be used by the project.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

# Using the 10<sup>th</sup> Edition of the ITE's "Trip Generation Manual" under Industrial Land Use 140, it is estimated that a total of 201 trips could be generated by the project. The peak hour volume of traffic is likely to occur in the PM (4PM to 6PM) and is estimated at 34 total trips. Truck traffic is likely to make up 10% to 20% of the trips.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

### We do not believe the project will interfere with or be affected by the movement of agriculture and forest products.

h. Proposed measures to reduce or control transportation impacts, if any:

#### None are planned at this time.

#### 15. Public Services [help]

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

#### We do not believe the project will increase the need for public services.

b. Proposed measures to reduce or control direct impacts on public services, if any.

#### None.

#### 16. Utilities [help]

- a. Circle utilities currently available at the site:
  - electricity, natural gas water refuse service telephone sanitary sewer septic system, other fiber
    - b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

### The utilities that are proposed for the project will be an extension of the services provided through the main existing Jubilant HollisterStier.

#### C. Signature [HELP]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature:

Name of signee: Wade Gelhausen, P.E.

Position and Agency/Organization: Associate Principal/DCI Engineers

Date Submitted: August 4, 2021



### Diesel Generator Set QSK50 Series Engine



1100 kW - 1500 kW 60 Hz

#### Description

Cummins<sup>®</sup> commercial generator sets are fully integrated power generation systems providing optimum performance, reliability and versatility for stationary standby and prime power applications. Codes or standards compliance may not be available with all model configurations – consult factory for availability.

#### **Features**

**Cummins Heavy-Duty Engine -** Rugged 4cycle, industrial diesel delivers reliable power, low emissions and fast response to load changes.

**Alternator -** Several alternator sizes offer selectable motor starting capability with low reactance 2/3 pitch windings; low waveform distortion with non-linear loads, fault clearing short-circuits capability.

**Permanent Magnet Generator (PMG) -** Offers enhanced motor starting and fault clearing short-circuit.

**Control System -** The PowerCommand® digital control is standard equipment and provides total genset system integration including automatic remote starting/stopping, precise frequency and voltage regulation, alarm and status message display, AmpSentry TM protective relay, output metering and auto-shutdown at fault detection and NFPA 110 Level 1 compliance

**Cooling System -** Standard integral setmounted radiator system, designed and tested for rated ambient temperatures, simplifies facility design requirements for rejected heat.

**NFPA -** The genset accepts full rated load in a single step in accordance with NFPA 110 for Level 1 systems.

**Warranty and Service -** Backed by a comprehensive warranty and worldwide distributor network.

	Standby Ra	ating	Prime Ratin	g	Continuou	s Rating	Data She	ets
Model	60 Hz kW (kVA)	50 Hz kW (kVA)	60 Hz kW (kVA)	50 Hz kW (kVA)	60 Hz kW (kVA)	50 Hz kW (kVA)	60 Hz	50 Hz
DQGAA	1250 (1563)		1100 (1375)				D-3333	
DQGAB	1500 (1875)		1350 (1688)				D-3334	

#### **Generator Set Specifications**

Governor regulation class	ISO8528 Part 1 Class G3
Voltage regulation, no load to full load	± 0.5%
Random voltage variation	± 0.5%
Frequency regulation	Isochronous
Random frequency variation	± 0.25%
Radio frequency emissions compliance	IEC 801.2 through IEC 801.5; MIL STD 461C, Part 9

#### **Engine Specifications**

Bore	158.8 mm (6.25 in.)
Stroke	158.8 mm (6.25 in.)
Displacement	50.3 Liters (3067 in <sup>3</sup> )
Configuration	Cast iron, V 16 cylinder
Battery capacity	1800 amps minimum at ambient temperature of 0 C (32 F)
Battery charging alternator	35 amps
Starting voltage	24 volt, negative ground
Fuel system	Cummins' Modular Common Rail System
Fuel filter	Dual Element 10 micron filtration spin-on fuel filter with 15 micron water separator
Air cleaner type	Dry replaceable element
Lube oil filter type(s)	Four spin-on, combination full flow filter and bypass filters
Standard cooling system	High ambient radiator

#### **Alternator Specifications**

Design	Brushless, 4 pole, drip-proof revolving field
Stator	2/3 pitch
Rotor	Single bearing, flexible disc
Insulation system	Class H
Standard temperature rise	150 ℃ standby at 40 ℃ ambient
Exciter type	PMG (Permanent Magnet Generator)
Phase rotation	A (U), B (V), C (W)
Alternator cooling	Direct drive centrifugal blower fan
AC waveform Total Harmonic Distortion (THDV)	< 5% no load to full linear load, < 3% for any single harmonic
Telephone Influence Factor (TIF)	< 50 per NEMA MG1-22.43
Telephone Harmonic Factor (THF)	< 3

#### **Available Voltages**

60 Hz Line-Neutral/Line-Line			50 Hz Line-Neutral/Line-Line	
220/380 255/440	277/480 347/600	2400/4160		

\*Note: Consult factory for other voltages.

#### **Generator Set Options**

#### Engine

208/240/480 V thermostatically controlled coolant heater for ambient above 4.5 °C (40 °F) 208/240/480 V thermostatically controlled coolant heater for ambient below 4.5 °C (40 °F) Dual 120 V 300 W lube oil heaters Dual 208/240 V 300 W lube oil heaters Dual 480 V 300 W lube oil heaters **Cooling System** Remote indicator

#### Control Panel

PowerCommand 3.3 Multiple language support 120/240 V 100 W control anticondensation heater Exhaust pyrometer Ground fault indication Remote annunciator panel Paralleling relay package Shutdown alarm relay package Audible engine shutdown alarm AC output analog meters (bargraph)

#### Exhaust System

Industrial grade exhaust silencer Residential grade exhaust silencer Critical grade exhaust

#### silencer Exhaust packages

Alternator

80 °C rise 105 °C rise 125 °C rise 120/240 V 300 W anticondensation heater

#### **Generator Set**

AC entrance box Battery Battery charger Circuit breaker – set mounted Disconnect switch - set mounted PowerCommand Network Remote annunciator panel Spring isolations 2 year warranty 5 year warranty 10 year major components warranty

\*Note: Some options may not be available on all models - consult factory for availability.

#### PowerCommand 3.3 – Control System



An integrated microprocessor-based generator set control system providing voltage regulation, engine protection, alternator protection, operator interface and isochronous governing. Refer to document S-1570 for more detailed information on the control.

**AmpSentry** – Includes integral AmpSentry protection, which provides a full range of alternator protection functions that are matched to the alternator provided.

**Power management** – Control function provides battery monitoring and testing features and smart starting control system.

Advanced control methodology – Three phase sensing, full wave rectified voltage regulation, with a PWM output for stable operation with all load types.

**Communications interface** – Control comes standard with PCCNet and Modbus interface.

**Regulation compliant** – Prototype tested: UL, CSA and CE compliant.

Service - InPower™ PC-based service tool available for detailed diagnostics, setup, data logging and fault simulation.

**Easily upgradeable** – PowerCommand controls are designed with common control interfaces.

**Reliable design** – The control system is designed for reliable operation in harsh environment.

#### Multi-language support

#### **Operator panel features**

#### Operator/display functions

- Displays paralleling breaker status
- Provides direct control of the paralleling breaker
- 320 x 240 pixels graphic LED backlight LCD
- Auto, manual, start, stop, fault reset and lamp test/panel lamp switches
- Alpha-numeric display with pushbuttons
- LED lamps indicating genset running, remote start, not in auto, common shutdown, common warning, manual run mode, auto mode and stop

#### Paralleling control functions

- First Start Sensor™ system selects first genset to close to bus
- · Phase lock loop synchronizer with voltage matching
- · Sync check relay
- · Isochronous kW and kVar load sharing
- · Load govern control for utility paralleling
- Extended paralleling (base load/peak shave) mode
- Digital power transfer control, for use with a breaker pair to provide open transition, closed transition, ramping closed transition, peaking and base load functions.

#### Alternator data

- Line-to-Neutral and Line-to-Line AC volts
- 3-phase AC current
- Frequency
- kW, kVAr, power factor kVA (three phase and total)
- Engine data
- DC voltage
- Engine speed
- Lube oil pressure and temperature
- Coolant temperature
- Comprehensive FAE data (where applicable)
- Other data
- · Genset model data
- Start attempts, starts, running hours, kW hours
- Load profile (operating hours at % load in 5% increments)
- · Fault history
- Data logging and fault simulation (requires InPower)

#### Standard control functions Digital governing

- Integrated digital electronic isochronous governor
- Temperature dynamic governing

#### **Digital voltage regulation**

- · Integrated digital electronic voltage regulator
- 3-phase, 4-wire Line-to-Line sensing
- Configurable torque matching

#### **AmpSentry AC protection**

- AmpSentry protective relay
- Over current and short circuit shutdown
- Over current warning
- Single and three phase fault regulation
- Over and under voltage shutdown
- Over and under frequency shutdown
- · Overload warning with alarm contact
- Reverse power and reverse Var shutdown
- Field overload shutdown

#### **Engine protection**

- · Battery voltage monitoring, protection and testing
- Overspeed shutdown
- · Low oil pressure warning and shutdown
- High coolant temperature warning and shutdown
- · Low coolant level warning or shutdown
- · Low coolant temperature warning
- Fail to start (overcrank) shutdown
- · Fail to crank shutdown
- Cranking lockout
- · Sensor failure indication
- · Low fuel level warning or shutdown
- · Fuel-in-rupture-basin warning or shutdown
- Full authority electronic engine protection

#### Standard Control Functions (continued)

#### **Control Functions**

- Time delay start and cool down
- Real time clock for fault and event time stamping
- Exerciser clock and time of day start/stop
- Data logging
- Cycle cranking
- Load shed
- Configurable inputs and outputs (4)
- Remote emergency stop
- Options
- Auxiliary output relays (2)

#### **Ratings Definitions**

#### Emergency Standby Power (ESP):

Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

#### Limited-Time Running Power (LTP):

Applicable for supplying power to a constant electrical load for limited hours. Limited-Time Running Power (LTP) is in accordance with ISO 8528.

#### Prime Power (PRP):

Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

#### Base Load (Continuous) Power (COP):

Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.



This outline drawing is for reference only. See respective model data sheet for specific model outline drawing number.

#### Do not use for installation design

Model	Dim 'A' (mm) (in.)	Dim 'B' (mm) (in.)	Dim 'C' (mm) (in.)	Set Weight dry* kg (lbs)	Set Weight* wet kg (Ibs)
DQGAA	5969 (235)	2007 (79)	2840 (112)	10989 (24220)	11493 (25330)
DQGAB	5969 (235)	2007 79)	2840 (112)	10989 (24220)	11493 (25330)

\* Note: Weights represent a set with standard features. See outline drawings for weights of other configurations.

#### **Codes and Standards**

	This generator set is designed in facilities certified to ISO 9001 and manufactured in facilities certified to ISO 9001 or ISO 9002.		The generator set is available listed to UL 2200, Stationary Engine Generator Assemblies for all 60 Hz low voltage models. The PowerCommand control is Listed to UL 508 – Category NITW7 for U.S and Canadian usage. Circuit breaker assemblies are UL 489 Listed for 100% continuous operation and also UL 869A Listed Service Equipment.
P	The Prototype Test Support (PTS) program verifies the performance integrity of the generator set design. Cummins products bearing the PTS symbol meet the prototype test requirements of NFPA 110 for Level 1 systems.	U.S EPA	Engine certified to Stationary Emergency U.S. EPA New Source Performance Standards, 40 CFR 60 subpart IIII Tier 2 exhaust emission levels. U.S. applications must be applied per this EPA regulation.
	All low voltage models are CSA certified to product class 4215-01.	International Building Code	The generator set package set is available certified for seismic application in accordance with the following International Building Code: IBC2000, IBC2003, IBC2006 and IBC2009.

For more information contact your local Cummins distributor or visit power.cummins.com

Our energy working for you.™



©2020 Cummins Inc. All rights reserved. Cummins is a registered trademark of Cummins Inc. PowerCommand, AmpSentry, InPower and "Our energy working for you." are trademarks of Cummins Inc. Other company, product, or service names may be trademarks or service marks of others. Specifications are subject to change without notice. S-1512 (07/20)