HILL AIR FORCE BASE

Only those conditions in Approval Order DAQE-1171-92 dated January 4, 1993, affecting the five diesel fuel storage tanks listed in condition 3(G) are valid. The rest of the equipment has been covered by other AOs.

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

DAQE-1171-92

Norman H. Bangerter
Governor
Kenneth L. Alkema
Executive Director
F. Burnell Cordner
Director

1950 West North Temple
Salt Lake City, Utah
(801) 536-4000
(801) 536-4099 Fax

Reply to: State of Utah
Division of Air Quality
Department of Environmental Quality
Salt Lake City, Utah 84114-4820

January 4, 1993

James R. Van Orman, Director
OOALC-EM
Department of the Air Force
Headquarters Ogden Air Logistics Center
Hill Air Force Base, Utah 84056-5990

Re: Approval Order for Emergency Generators and Media Blast Booth
Davis County CDS A1 NA

Dear Mr. Van Orman:

The above-referenced project has been evaluated and found to be consistent with the requirements of the Utah Air Conservation Rules (UACR) and the Utah Air Conservation Act. A 30-day public comment period was held and all comments received were evaluated. The conditions of this Approval Order (AO) reflect any changes to the proposed conditions which resulted from the evaluation of the comments received. This air quality AO authorizes the project with the following conditions and failure to comply with any of the conditions may constitute a violation of this order:

RECOMMENDED APPROVAL ORDER CONDITIONS

1. Hill Air Force Base shall install and operate the media blast booth in Building 48 and the emergency generators in Buildings 14, 565 and 575 according to the information submitted in the Notices of Intent dated March 16, 1992, and March 24, 1992.

   A copy of this AO shall be posted on site and shall be available to the employees who operate the air emission producing equipment. All employees who operate the air emission producing equipment shall receive instruction as to their responsibilities in operating the equipment in compliance with all of the relevant conditions.

2. This AO shall replace the AO dated September 18, 1980.

3. The approved installation shall consist of the following equipment or equivalent equipment:

   A. Pram Media Blast Booth, Model No.101020, equipped with a filter cartridge dust collector unit in Building 48

   B. Caterpillar 225 KW generator, Serial No. 2AJ00536 in Building 565

   C. Existing Onan 15 KW generator, Model No. 15-ORDJC-3CR in Building 1151

   D. Caterpillar 500 KW generator, Model No. 3412 DITA in Building 14

   E. Cummins 350 KW, Model No. NTA855 generator (relocated from Building 221 to Building 14)

   F. Caterpillar 600 KW generator, Model No. 3412 DITA in Building 575

G. Five diesel fuel storage tanks - 250, 400, 1000, 2000, and 5000 gallons

Equivalency shall be determined by the Executive Secretary.

4. Visible emissions from the following emission points shall not exceed the following values:

A. All emergency generators - 20% opacity after warm-up
B. Media Blast Booth - 10% opacity

Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9.

5. The hours of operation for the following emission points shall not exceed the following values without prior approval in accordance with R307-1-3.1, UACR.

A. Each generator in Buildings 14, 565 and 575 - 100 hours of maintenance operation per 12-month period

B. Media blast booth - 2080 hours per 12-month period

Compliance with the annual limitations shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using the previous 12 months. Records of the hours of operation shall be kept for all periods when the plant is in operation. Records of the hours of operation shall be made available to the Executive Secretary or his representative upon request and shall include a period of two years ending with the date of the request. The records shall be kept on a daily basis.

The hours of operation for the generators shall be determined by an engine hour totalizer installed on the engines. The hours of maintenance operation for the generators shall not include actual emergency use. However, the hours of actual emergency use shall also be recorded.

The hours of operation for the media blast booth shall be determined by examination of operation records.

6. The sulfur content of any fuel oil burned shall not exceed <u>0.40 pounds of sulfur per million BTU heat input</u> as determined by ASTM Method D-4294-89. The sulfur content shall be tested if directed by the Executive Secretary.

7. PM_{10} emissions to the atmosphere from the media blast booth shall not exceed:

A. 0.93 lbs/hr
B. 0.016 grains/dscf (68°F, 29.92 in Hg)

8. Stack testing to show compliance with the emission limitations of condition #7 shall be performed as specified below:

<u>Test Frequency</u>

No initial testing is required. However, the Executive Secretary may require testing at any time in accordance with R307-1-3.4.1, UACR. The source shall be tested if directed by the Executive Secretary.

<u>Notification</u>

The applicant shall provide a notification of the test date at least 45 days prior to the test. A pretest conference shall be held if directed by the Executive Secretary. It shall be held at least 30 days prior to the test between the owner/operator, the tester, and the Executive Secretary. The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approvable access shall be provided to the test location.

PM_{10}

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a. The back half condensibles shall also be tested using Method 202.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using the method specified by the Executive Secretary. All particulate captured shall be considered PM_{10}.

The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

Sample Location

40 CFR 60. Appendix A, Method 1

Volumetric flow rate

40 CFR 60, Appendix A, Method 2

Calculations

To determine mass emission rates (lbs/hr, etc.), the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

Source Operation

The exhaust flow rate during all compliance testing shall be no less than 6300 acfm (90% of the design rate listed in this AO). The production rate shall be established at a pretest conference.

9. All installations and facilities authorized by this AO shall be adequately and properly maintained. The owner/operator shall comply with R307-1-3.5 and 4.7, UACR. R307-1-3.5, UACR addresses emission inventory reporting requirements. R307-1-4.7, UACR addresses unavoidable breakdown reporting requirements. The owner/operator shall calculate/estimate the excess emissions whenever a breakdown occurs. The sum total of excess and normal emissions shall be reported to the Executive Secretary as directed for each calendar year.

10. The Executive Secretary shall be notified in writing upon start-up of the installation, as an initial compliance inspection is required. Eighteen months from the date of this AO the Executive Secretary shall be notified in writing of the status of

construction/installation if construction/installation is not completed. At that time the Executive Secretary shall require documentation of the continuous construction/installation of the operation and may revoke the AO in accordance with R307-1-3.1.5, UACR.

Any future modifications to the equipment approved by this order must also be approved in accordance with R307-1-3.1.1, UACR.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including the UACR.

Annual emissions for these emission points (media blast booth in Bldg 48, 500 KW and 350 KW emergency generators in Bldg 14, 225 KW emergency generator in Bldg 565, 15 KW generator in Bldg 1151, 600 KW emergency generator in Bldg 575) are currently calculated at the following values:

A. 1.33 ton/yr for Particulate
B. 1.08 ton/yr for PM_{10}
C. 0.12 ton/yr SO_2
D. 1.90 ton/yr NO_x
E. 0.15 ton/yr VOC
F. 0.40 ton/yr CO
G. 0.03 ton/yr Aldehydes

These calculations are for the purposes of determining the applicability of PSD and nonattainment area major source requirements of the UACR.

Sincerely,

F. Burnell Cordner

F. Burnell Cordner, Executive Secretary
Utah Air Quality Board

FBC:DC:dn

cc: EPA Region VIII, Mike Owens
Davis County Health Department

State of Utah
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

Norman H. Bangerter
Governor
Kenneth L. Alkema
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1950 West North Temple
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(801) 536-4000
(801) 536-4099 Fax

Reply to: State of Utah
Division of Air Quality
Department of Environmental Quality
Salt Lake City, Utah 84114-4820

DAQE-0787-92

August 17, 1992

Newspaper Agency
Legal Advertising Department
157 Regent Street
Salt Lake City, UT 84111

This letter will confirm the authorization to publish the attached NOTICE in the Deseret News and the Salt Lake Tribune on August 25, 1992.

Please mail the invoice and affidavit of publication to the Utah State Department of Environmental Quality, Division of Air Quality, P.O. Box 16690, Salt Lake City, Utah 84114-4820.

Sincerely,

Cheery Love

Cheery Love
Office Technician
Division of Air Quality

MK:cl

Enclosure

NOTICE

The following Notices of Intent to construct, submitted in accordance with Section 3.1, Utah Air Conservation Rules, have been received for consideration by the Executive Secretary, Utah Air Quality Board:

1. Department of the Air Force
   Headquarters Ogden AFLC
   Hill Air Force Base, UT 84056-5990

Emergency Generators and Media Blast Booth

Davis County - CDS NA

Existing Emissions (from existing emergency generator in Building 575)

Particulate	0.04 ton/yr
PM_{10}	0.02
SO_2	0.04
NO_x	0.62
CO	0.13
VOC	0.05
Aldehydes	0.01

Proposed Emissions (from new generator)

Particulate	0.09 ton/yr
PM_{10}	0.05
SO_2	0.08
NO_x	1.24
CO	0.26
VOC	0.10
Aldehydes	0.02

Net Increase in Emissions

Particulate	0.05 ton/yr
PM_{10}	0.03

SO_2	0.04
NO_x	0.62
CO	0.13
VOC	0.05
Aldehydes	0.01

2. Southwest Soil Remediation, Inc.
   6262 N. Swan, Suite 200A
   Tucson, AZ 85718

Mobile - Soil Decontaminator

Mobile County - CDS B NA

Emissions were calculated using a maximum concentration of 5000 milligrams of VOC per kilogram contaminated soil and maximum contaminated soil throughput of 12.5 tons/hr.

Proposed Emissions

Particulate	4.08	tons/year
PM_{10}	2.94	
SO_x	1.38	
NO_x	24.50	
CO	6.02	
VOC	7.38	

The engineering evaluation and air quality impact analysis have been completed and no adverse air quality impacts are expected. It is the intent of the Executive Secretary to approve the construction projects.

The construction proposal and estimates of the effect on local air quality are available for public inspection and comment at the Division of Air Quality, Utah State Department of Environmental Quality, 1950 West North Temple, Salt Lake City, Utah 84114-4820. Written comments received by the Division, at the

same address on or before September 24, 1992 will be considered in making the final decision on the approval/disapproval of the proposed construction.

If anyone so requests to the Executive Secretary in writing, within 15 days of publication of the Notice, a hearing will be held to explain the project and technical rationale for proposed action. A hearing will be scheduled as close as practicable to the proposed project location. Comments obtained during a hearing will be evaluated and considered by the Executive Secretary before making a final decision on the approval/disapproval of the project.

Date of Notice: August 25, 1992

Norman H. Bangerter
Governor
Kenneth L. Alkema
Executive Director
F. Burnell Cordner
Director

State of Utah
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

1950 West North Temple
Salt Lake City, Utah
(801) 536-4000
(801) 536-4099 Fax

Reply to State of Utah
Division of Air Quality
Department of Environmental Quality
Salt Lake City, Utah 84114-4820

agree DR

MEMORANDUM TO: Donald E. Robinson, P. E., Engineering Manager

FROM: Dorothy Rogers, Environmental Health Engineer

Subject: Consolidation of Recommended Approval Order Conditions for Emergency Generators and Media Blast Booth at Hill Air Force Base

Date: August 10, 1992

==========

The recommended Approval Order Conditions for four similar reviews of modifications at Hill Air Force Base have been consolidated. This will result in the issuance of one Intent to Approve and one Approval Order. The fee for this Approval Order will be $2000.

Recommended Approval Order Conditions

1. Hill Air Force Base shall install and operate the media blast booth in Building 48 and the emergency generators in Buildings 14, 565 and 575 according to the information submitted in the Notices of Intent dated March 16, 1992 and March 24, 1992.

   A copy of this Approval Order shall be posted on site and shall be available to the employees who operate the air emission producing equipment. All employees who operate the air emission producing equipment shall receive instruction as to their responsibilities in operating the equipment in compliance with all of the relevant conditions.

2. This Approval Order shall replace the Approval Order dated September 18, 1980.

3. The approved installation shall consist of the following equipment or equivalent equipment:

   A. Pram Media Blast Booth, Model No.101020, equipped with a filter cartridge dust collector unit in Building 48

   B. Caterpillar 225 KW generator, Serial No. 2AJ00536 in Building 565

   C. Existing Onan 15 KW generator, Model No. 15-ORDJC-3CR in Building 1151

   D. Caterpillar 500 KW generator, Model No. 3412 DITA in Building 14

   E. Cummins 350 KW, Model No. NTA855 generator (relocated from Building 221 to Building 14)

   F. Caterpillar 600 KW generator, Model No. 3412 DITA in Building 575

Printed on recycled paper

G. Five diesel fuel storage tanks - 250, 400, 1000, 2000, and 5000 gallons

Equivalency shall be determined by the Executive Secretary.

4. Visible emissions from the following emission points shall not exceed the following values:

A. All emergency generators - 20% opacity after warm-up

B. Media Blast Booth - 10% opacity

Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9.

5. The hours of operation for the following emission points shall not exceed the following values without prior approval in accordance with R307-1-3.1, UAC.

A. Each generator in Buildings 14, 565 and 575 - 100 hours of maintenance operation per 12-month period

B. Media blast booth - 2080 hours per 12-month period

Compliance with the annual limitations shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using the previous 12 months. Records of the hours of operation shall be kept for all periods when the plant is in operation. Records of the hours of operation shall be made available to the Executive Secretary or his representative upon request and shall include a period of two years ending with the date of the request. The records shall be kept on a daily basis.

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The hours of operation for the media blast booth shall be determined by examination of operation records.

6. The sulfur content of any fuel oil burned shall not exceed <u>0.40 pounds of sulfur per million BTU heat input</u> as determined by ASTM Method D-4294-89. The sulfur content shall be tested if directed by the Executive Secretary.

7. PM_{10} emissions to the atmosphere from the media blast booth shall not exceed:

A. 0.93 lbs/hr

B. 0.016 grains/dscf (68°F, 29.92 in Hg)

8. Stack testing to show compliance with the emission limitations of condition #7 shall be performed as specified below:

<u>Test Frequency</u>

No initial testing is required. However, the Executive Secretary may require testing at any time in accordance with R307-1-3.4.1,

UAC. The source shall be tested if directed by the Executive Secretary.

Notification

The applicant shall provide a notification of the test date at least 45 days prior to the test. A pretest conference shall be held if directed by the Executive Secretary. It shall be held at least 30 days prior to the test between the owner/operator, the tester, and the Executive Secretary. The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approvable access shall be provided to the test location.

PM_{10}

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For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using the method specified by the Executive Secretary. All particulate captured shall be considered PM_{10}.

The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

Sample Location

40 CFR 60. Appendix A, Method 1

Volumetric flow rate

40 CFR 60, Appendix A, Method 2

Calculations

To determine mass emission rates (lbs/hr, etc.), the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

Source Operation

The exhaust flow rate during all compliance testing shall be no less than 6300 acfm (90% of the design rate listed in this Approval Order). The production rate shall be established at a pretest conference.

9. All installations and facilities authorized by this Approval Order shall be adequately and properly maintained. The owner/operator shall comply with R307-1-3.5 and 4.7, UAC. R307-1-3.5, UAC addresses emission inventory reporting requirements. R307-1-4.7, UAC addresses unavoidable breakdown reporting requirements. The owner/operator shall calculate/estimate the excess emissions whenever a breakdown occurs. The sum total of excess and normal

emissions shall be reported to the Executive Secretary as directed for each calendar year.

10. The Executive Secretary shall be notified in writing upon start-up of the installation, as an initial compliance inspection is required. Eighteen months from the date of this Approval Order the Executive Secretary shall be notified in writing of the status of construction/installation if construction/installation is not completed. At that time the Executive Secretary shall require documentation of the continuous construction/installation of the operation and may revoke the Approval Order in accordance with R307-1-3.1.5, UAC.

Any future modifications to the equipment approved by this order must also be approved in accordance with R307-1-3.1.1, UAC.

This Approval Order in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including the Utah Air Conservation Rules.

Annual emissions for these emission points (media blast booth in Bldg 48, 500 KW and 350 KW emergency generators in Bldg 14, 225 KW emergency generator in Bldg 565, 15 KW generator in Bldg 1151, 600 KW emergency generator in Bldg 575) are currently calculated at the following values:

A. 1.33 ton/yr for particulate
B. 1.08 ton/yr for PM_{10}
C. 0.12 ton/yr SO_2
D. 1.90 ton/yr NO_x
E. 0.15 ton/yr VOC
F. 0.40 ton/yr CO
G. 0.03 ton/yr aldehydes

These calculations are for the purposes of determining the applicability of PSD and nonattainment area major source requirements of the UACR.

DOROTHY\WP\MEMOS\HAFB.MEM

UTAH DIVISION OF AIR QUALITY
NEW/MODIFIED SOURCE PLAN REVIEW

James R. Van Orman
Director of Environmental Management
Department of the Air Force
Headquarters Ogden Air Logistics Center
Hill Air Force Base, Utah 84056-5990

ENGINEER:	Dorothy L. Rogers
RE:	Installation of Media Blast Booth in Building 48 UTM: 4,161,000 N 455,450 E Davis County CDS A1 NA
DATE:	August 3, 1992
NOTICE OF INTENT DATED:	March 24, 1992
PLANT CONTACT:	Jay Gupta
PHONE NUMBER:	(801) 777-4618
PLANT LOCATION:	Building 48, Hill Air Force Base

FEES:

Filing Fee	$ 750.00
Review Engineer - XX hours at $50.00/hour	$ 000.00
Modeler - XX hours at $50.00/hour	$ 000.00
Computer Usage Fee	$ 000.00
Notice to Paper	$ 00.00
Travel - 00 miles at $0.23/mile	$ 000.00
Total	$ 750.00

APPROVALS:

Engineering Unit Manager GR 8-3-92

Applicant Contact Made LK 8-5-92

Type of Source

Attainment Area	Yes	No
Nonattainment Area		
PM_{10}	Yes	No
SO_2	Yes	No
NO_X	Yes	No
CO	Yes	No
Ozone	Yes	No
NSPS	Yes	No
Subparts A and _____		
NESHAP	Yes	No
Subparts A and _____		
Toxic Pollutants	Yes	No
_____		
Toxic Major Source	Yes	No
(> 10 tpy or > 25 tpy combination)		
New Major Source	Yes	No
Major Modification	Yes	No
PSD Permit	Yes	No
Send to EPA	Yes	No

I. DESCRIPTION OF PROPOSAL

Hill Air Force Base is planning to install a 10' X 10' X 20' blast media booth complete with the blast/reclaimer assembly comprising of a cyclone separator, a storage hopper, a low profile hopper, and a blast machine.

The cyclone blower vacuums blasting residue from the low profile hopper in the enclosure floor. As the residue enters the cyclone, the cyclone separates undamaged blast media from the other debris and dust. The undamaged, reusable media drops through the cyclone's vibrating screen into the storage hopper. The reclaimed media from the storage hopper feeds into the blast machine. The debris and dust from the cyclone are drawn into the dust collector.

The blast media will use Poly V plastic media. The components to be blasted include aircraft wheels, panels, ladders, engine run screens, tool boxes, carts, and ground support equipment.

This booth will be installed at Building 48 and will be operated a maximum of 2080 hours per year.

II. EMISSION SUMMARY

Proposed Emissions (from Media Blast Booth)

Particulate	1.2 ton/yr
PM_{10}	1.0

III. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) ANALYSIS

The media blast booth is equipped with a 24 cartridge dust collector assembly with a 99.9% collection efficiency for particulate matter larger than 1 micron. The Engineering Section recommends that BACT for the media blast booth be the following:

A. Proper operation and maintenance of the cartridge dust collector

B. 10% opacity

C. PM_{10} emission concentration of 0.016 grain/dscf (68°F, 29.92" Hg)

D. PM_{10} emission rate of 0.93 lbs/hr

IV. APPLICABILITY OF FEDERAL REGULATIONS AND UTAH AIR CONSERVATION RULES

This Notice of Intent is for a minor modification to a major source. It is not a new major source or a major modification. The following federal regulations and state rules have been examined to determine their applicability to this Notice of Intent:

1. R307-1-3.1, UAC - Notice of Intent required for a modified source. This rule applies.

2. R307-1-3.1.5, UAC - Continuous program of construction required to begin within eighteen months of Approval Order date. If a continuous program of construction is not proceeding, the Executive Secretary may revoke the Approval Order.

3. R307-1-3.1.8 (A), UAC - Application of best available control technology (BACT) required at all emission points. This rule applies.

4. R307-1-3.1.8 (C), UAC - Approval of the UAQB is required before the Executive Secretary can approve a source under Section 3.6.5 which consumes more than 50% of a PSD increment. This rule does not apply to this NOI because a PSD permit is not being issued.

5. R307-1-3.1.8 (D), UAC - Enforceable offset of 1.2:1 required for new sources or modifications which would produce an emission increase greater than or equal to 50.00 tons per year of any combination of PM_{10}, SO_2, and NO_x. This is required in Salt Lake, Davis, and Utah Counties and in any area that impacts these three counties as defined in the rule. The effective date is November 15, 1990. This emission point emits less than 50.00 tons per year of combined PM_{10}, SO_2, and NO_x. Therefore, this rule does not apply.

6. R307-1-3.1.8 (D), UAC - Enforceable offset of 1:1 required for new sources or modifications which would produce an emission increase greater than or equal to 25.00 tons per year of any combination of PM_{10}, SO_2, and NO_x. This is required in Salt Lake, Davis, and Utah Counties and in any area that impacts these three counties as defined in the rule. The effective date is November 15, 1990. This emission point emits less than 25.00 tons per year of combined PM_{10}, SO_2, and NO_x. Therefore, this rule does not apply.

7. R307-1-3.1.9, UAC - Rules for relocation of temporary sources. This source is a permanent source. Therefore, this rule does not apply.

8. R307-1-3.2.1, UAC - Particulate emission limitations for existing sources which are located in a nonattainment area. This rule has been superseded by the PM_{10} SIP, except for Weber County. The effective date is November 15, 1990. The sources listed in Weber County are as follows:

   A. Farmers Grain Coop
   B. Fife Rock Products
   C. Interpace Corporation
   D. Parsons Asphalt Plant
   E. Pillsbury Company
   F. Teledyne Incinerator
   G. Gibbons and Reed Asphalt

   This source is not listed in the SIP. Therefore, this rule does not apply.

9. R307-1-3.3.2, UAC - Review requirements for new major sources or major modifications which are located in a nonattainment area or which impact a nonattainment area. This Notice of Intent does not represent a new major source or a major modification. Therefore, this rule will not apply.

10. R307-1-3.5, UAC - Emission inventory reporting requirements. This rule requires any source which emits 25 tons or more per year of any pollutant to submit an emission inventory to the Division of Air Quality at least every third year or as determined necessary by the Executive Secretary. Hill Air Force Base must comply with this rule.

11. R307-1-3.6.3, UAC - PSD Increment Consumption - This rule lists the allowable PSD increment consumption. Under the PSD rules, the entire state has been triggered for TSP, SO_2, and NO_x. The allowable increments are as follows:

TSP

A. Class I areas

1) 5 ug/m^3 (annual)

2) 10 ug/m^3 (24 hour)

B. Class II areas

1) 19 ug/m^3 (annual)

2) 37 ug/m^3 (24 hour)

SO_2

A. Class I areas

1) 2 ug/m^3 (annual)

2) 5 ug/m^3 (24 hour)

3) 25 ug/m^3 (3 hour)

B. Class II areas

1) 20 ug/m^3 (annual)

2) 91 ug/m^3 (24 hour)

3) 512 ug/m^3 (3 hour)

NO_x

A. Class I areas - 2.5 ug/m^3 (annual)

B. Class II areas - 25 ug/m^3 (annual)

There are also Class III increments, which do not apply in Utah. The above increments apply at all locations, unless the area is already nonattainment. The entire increment may not be available at all locations due to previously permitted sources consuming increment. Modeling analysis is not routinely performed for air pollution sources with emissions below the following levels:

Criteria for Screen Modeling
(Tons per Year)

	Non-Attainment Areas	Attainment Areas
SO_x	10	20
NO_x	20	20
PM_{10}	5	5
TSP	10	10
O_3	5	5

CO	25	50
VOC	10	20

12. R307-1-3.6.5 (b), UAC - Prevention of significant deterioration (PSD) review requirements for new major sources or major modifications. This Notice of Intent does not represent a new major source or a major modification under PSD rules. Therefore, this rule does not apply.

13. R307-1-3.6.6, UAC - Increment violations. This rule requires the UAQB to promulgate a plan and implement rules to eliminate any PSD increment violations which occur in the state. No known violations have yet occurred. This proposed Notice of Intent will consume negligible amounts of increment.

14. R307-1-3.8, UAC - Stack height rule. This rule limits the creditable height of stacks to that height determined to be good engineering practice. The formulas used to determine good engineering practice are found in 40 CFR 51.100. A deminimus height of 65 meters (213.2 feet) is allowed. Hill Air Force Base has no stacks which exceed 65 meters in height. It is in compliance with this rule.

15. R307-1-3.11, UAC - Visibility screening analysis requirements. This rule requires all new major sources or major modifications to undergo a visibility screening analysis to determine visibility impact on any mandatory Class I area. This Notice of Intent does not represent a new major source or a major modification under UACR rules. Therefore, this rule does not apply.

16. R307-1-4.1.2, UAC - 20% opacity limitation at all emission points unless a more stringent limitation is required by New Source Performance Standards (NSPS) or BACT or National Emission Standards for Hazardous Air Pollutants (NESHAPS). In this case, a 10% opacity limitation is considered BACT.

17. R307-1-4.1.9, UAC - EPA Method 9 to be used for visible emission observations. This rule applies.

18. R307-1-4.2.1, UAC - Sulfur content limitations in oil and coal used for combustion. This emission point does not use oil or coal for combustion. This rule does not apply.

19. R307-1-4.6, UAC - <u>Continuous Emission Monitoring Systems Program</u> - Reporting and technical requirements for continuous emission monitoring systems. It covers breakdowns and quarterly reports for continuous monitoring systems. Section 4.6.5 states that this regulation applies to the following:

    A. Sources required to install CEMS as required by the following documents:

        1) NSPS
        2) State Implementation Plan
        3) Approval Order
        4) Consent Decree
        5) Administrative Orders and Agreements

    B. Any source that constructs after the promulgation of this rule two or more emission points, which may interfere with

VEO's, shall install an opacity monitor on each stack.

This emission point does not require a CEMS.

20. R307-1-4.7, UAC - Unavoidable breakdown reporting requirements. This rule applies. Section 4.7.1 discusses reporting requirements. A breakdown for any period longer than 2 hours must be reported to the Executive Secretary within 3 hours of the beginning of the breakdown, if reasonable, but in no case longer than 18 hours after the beginning of the breakdown. A written report is required within 7 calendar days. The report shall include the estimated quantity of pollutants (total and excess). Section 4.7.2 discusses penalties.

21. R307-1-4.9, UAC - Review requirements for volatile organic compound (VOC) sources located in a nonattainment area for ozone constructed in 1980 or earlier. This process is not covered in this rule.

22. R307-1-4.10, UAC - Abrasive Blasting Requirements - Opacity limitations and performance standards for abrasive blasting - This regulation applies to this source. The performance standards require the use of one of the following:

    A. Confined blasting
    B. Wet abrasive blasting
    C. Hydroblasting
    D. Unconfined blasting using certified grit

    If the source complies with one of the above and is located in an attainment area, the opacity limitation is 40%. If the source complies with one of the above and is located in a nonattainment area, the opacity limitation is 20%. Unconfined blasting with abrasives must be done using certified grit. Certified grit is defined as follows:

    A. Before blasting, the abrasive shall not contain more than 1% by weight material passing a #70 standard sieve.

    B. After blasting, the abrasive shall not contain more than 1.8% by weight material 5 microns or smaller.

    This emission point is using confined blasting.

23. R307-1-5, UAC - Emergency episode requirements. This rule applies.

24. New Source Performance Standards (NSPS) - There is no NSPS for this industrial process.

25. National Emission Standards for Hazardous Air Pollutants (NESHAPS) - There is no NESHAPS for this industrial process.

26. National Ambient Air Quality Standards (NAAQS) - This source is located in Davis County, which is a nonattainment area for ozone. The Division of Air Quality guidelines do not call for this source to be modeled for any pollutant. The Division has found through experience that, because of the small quantity of emissions involved and the conservative predictions made by modeling, a source or emission point of this small size is very unlikely to cause a new violation of the NAAQS.

27. 40 CFR 60.14, Definition of Modification - Any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which an NSPS standard applies. The following are not by themselves considered modifications:

1) Maintenance, repair, and replacement

2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility

3) An increase in the hours of operation

4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by 60.1, the existing facility was designed to accommodate that alternative use

5) The addition or use of any system or device whose primary function is the reduction of air pollutants

6) Relocation or change in ownership

Also see Section 1.92, which is the State's definition. It is a planned increase in emissions. This Notice of Intent is a modification.

28. 40 CFR 60.15, Definition of Reconstruction - the replacement of components of an existing facility to such an extent that:

1) The fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new facility and

2) It is technologically and economically feasible to meet the applicable standards set forth in this part

This Notice of Intent is not a reconstruction.

29. R307-1-1.89, Definition of Major Modification - It means any physical change in or change in the method of operation of a major source that would result in a significant net emission increase of any pollutant. A net emissions increase that is significant for VOC shall be considered significant for ozone. A physical change or change in the method of operation shall not include:

A. Routine maintenance, repair, or replacement

B. Use of an alternative fuel or raw material by reason of an order under Section 2a and b of the ESECA of 1974 or by reason of a natural gas curtailment plan pursuant to the Federal Power Act

C. Use of an alternative fuel by reason of an order under Section 125 of the CAA

D. Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste

E. Use of an alternative fuel or raw material by a source:

1) which the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any enforceable permit condition

2) which the source is otherwise approved to use

F. An increase in the hours of operation or the production rate unless such change would be prohibited under any enforceable permit condition

G. Any change in ownership at a source

This Notice of Intent is not a major modification.

V. RECOMMENDED APPROVAL ORDER CONDITIONS

1. Hill Air Force Base shall install and operate the media blast booth in Building 48 according to the information submitted in the Notice of Intent dated March 16, 1992.

   A copy of this Approval Order shall be posted on site and shall be available to the employees who operate the air emission producing equipment. All employees who operate the air emission producing equipment shall receive instruction as to their responsibilities in operating the equipment in compliance with all of the relevant conditions.

2. The approved installation shall consist of a Pram Media Blast Booth, Model No.101020, equipped with a filter cartridge dust collector unit or equivalent. Equivalency shall be determined by the Executive Secretary.

3. Visible emissions from the media blast booth shall not exceed 10% opacity. Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9.

4. The hours of operation for the media blast booth shall not exceed 2080 hours per 12-month period without prior approval in accordance with R307-1-3.1, UAC. Compliance with the annual limitation shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using the previous 12 months. Records of the hours of operation shall be kept for all periods when the blast booth is in operation. Records of the hours of operation shall be made available to the Executive Secretary or his representative upon request and shall include a period of two years ending with the date of the request. The hours of operation shall be determined by examination of operation records. The records shall be kept on a daily basis.

5. PM_{10} emissions to the atmosphere from the media blast booth shall not exceed:

   A. 0.93 lbs/hr

   B. 0.16 grains/dscf (68°F, 29.92 in Hg)

6. Stack testing to show compliance with the emission limitations of condition #5 shall be performed as specified below:

   Test Frequency

No initial testing is required. However, the Executive Secretary may require testing at any time in accordance with R307-1-3.4.1, UAC. The source shall be tested if directed by the Executive Secretary.

Notification

The applicant shall provide a notification of the test date at least 45 days prior to the test. A pretest conference shall be held if directed by the Executive Secretary. It shall be held at least 30 days prior to the test between the owner/operator, the tester, and the Executive Secretary. The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approvable access shall be provided to the test location.

PM_{10}

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a. The back half condensibles shall also be tested using Method 202.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using the method specified by the Executive Secretary. All particulate captured shall be considered PM_{10}.

The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

Sample Location

40 CFR 60. Appendix A, Method 1

Volumetric flow rate

40 CFR 60, Appendix A, Method 2

Calculations

To determine mass emission rates (lbs/hr, etc.), the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

Source Operation

The exhaust flow rate during all compliance testing shall be no less than 6300 acfm (90% of the design rate listed in this Approval Order). The production rate shall be established at a pretest conference.

7. All installations and facilities authorized by this Approval Order shall be adequately and properly maintained. The owner/operator shall comply with R307-1-3.5 and 4.7, UAC. R307-1-3.5, UAC addresses emission inventory reporting requirements. R307-1-4.7, UAC addresses unavoidable breakdown reporting requirements. The

owner/operator shall calculate/estimate the excess emissions whenever a breakdown occurs. The sum total of excess and normal emissions shall be reported to the Executive Secretary as directed for each calendar year.

8. The Executive Secretary shall be notified in writing upon start-up of the installation, as an initial compliance inspection is required. Eighteen months from the date of this Approval Order the Executive Secretary shall be notified in writing of the status of construction/installation if construction/installation is not completed. At that time the Executive Secretary shall require documentation of the continuous construction/installation of the operation and may revoke the Approval Order in accordance with R307-1-3.1.5, UAC.

Any future modifications to the equipment approved by this order must also be approved in accordance with R307-1-3.1.1, UAC.

This Approval Order in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including the Utah Air Conservation Rules.

Annual emissions for this emission point (media blast booth in Bldg 48) are currently calculated at the following values:

A. 1.2 ton/yr for particulate
B. 1.0 ton/yr for PM_{10}

These calculations are for the purposes of determining the applicability of PSD and nonattainment area major source requirements of the UACR.

DOROTHY\WP\REVIEWS\BLAST.REV

UTAH DIVISION OF AIR QUALITY
NEW/MODIFIED SOURCE PLAN REVIEW

James R. Van Orman
Director of Environmental Management
Department of the Air Force
Headquarters Ogden Air Logistics Center
Hill Air Force Base, Utah 84056-5990

ENGINEER:	Dorothy L. Rogers
RE:	Replacement of Emergency Generator in Bldg 575 UTM: 4,161,000 N 455,450 E
	Davis County CDS A1 NA
DATE:	August 4, 1992
NOTICE OF INTENT DATED:	March 24, 1992
PLANT CONTACT:	Jay Gupta
PHONE NUMBER:	(801) 777-4618
PLANT LOCATION:	Building 575, Hill Air Force Base

FEES:

Filing Fee	$ 1500.00
Review Engineer - XX hours at $50.00/hour	$ 000.00
Modeler - XX hours at $50.00/hour	$ 000.00
Computer Usage Fee	$ 000.00
Notice to Paper	$ 00.00
Travel - 00 miles at $0.23/mile	$ 000.00
Total	$ 1500.00

APPROVALS:

Engineering Unit Manager DRP 8-11-92

Applicant Contact Made 8-5-92

Type of Source A1

Attainment Area	**Yes**	No
Nonattainment Area		
PM_{10}	Yes	**No**
SO_2	Yes	**No**
NO_X	Yes	**No**
CO	Yes	**No**
Ozone	**Yes**	No
NSPS	Yes	**No**
Subparts A and _____		
NESHAP	Yes	**No**
Subparts A and _____		
Toxic Pollutants	Yes	**No**
_____		
Toxic Major Source	Yes	**No**
(> 10 tpy or > 25 tpy combination)		
New Major Source	Yes	**No**
Major Modification	Yes	**No**
PSD Permit	Yes	**No**
Send to EPA	Yes	**No**

I. DESCRIPTION OF PROPOSAL

Hill Air Force Base is planning to replace a 300 KW diesel generator with a 600 KW diesel generator in Building 575. The generator being replaced was grandfathered.

The new generator is a Caterpillar Model No. 3412 DITA emergency diesel generator. This generator will serve as a backup for emergency power to Industrial Waste Water Treatment Plant equipment. This generator will be used a maximum of 100 hours per year.

This generator will use an existing 2,000 gallon above ground diesel storage tank and a 250 gallon day tank for fuel supply.

II. EMISSION SUMMARY

Existing Emissions (from existing emergency generator in Building 575)

Particulate	0.04 ton/yr
PM_{10}	0.02
SO_2	0.04
NO_x	0.62
CO	0.13
VOC	0.05
Aldehydes	0.01

Proposed Emissions (from new generator)

Particulate	0.09 ton/yr
PM_{10}	0.05
SO_2	0.08
NO_x	1.24
CO	0.26
VOC	0.10
Aldehydes	0.02

Net Increase in Emissions

Particulate	0.05 ton/yr
PM_{10}	0.03
SO_2	0.04
NO_x	0.62
CO	0.13
VOC	0.05
Aldehydes	0.01

III. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) ANALYSIS

BACT for the generator set would be the use of a catalytic converter to control emissions of CO, NO_x and VOC. Also, a natural gas fueled generator would be considered BACT rather than a diesel fueled generator.

In this case, the generator is proposed to be a stand-by generator that will only operate in emergency situations and will only be operated for approximately 100 hours per year. The addition of a control device to the generator to reduce emissions would be a large economic burden.

The Engineering Section is recommending that BACT for the generator be proper operation and maintenance and 20% opacity.

IV. APPLICABILITY OF FEDERAL REGULATIONS AND UTAH AIR CONSERVATION RULES

This Notice of Intent is for a minor modification to a major source. It is not a new major source or a major modification. The following federal regulations and state rules have been examined to determine their applicability to this Notice of Intent:

1. R307-1-3.1, UAC - Notice of Intent required for a modified source. This rule applies.

2. R307-1-3.1.5, UAC - Continuous program of construction required to begin within eighteen months of Approval Order date. If a continuous program of construction is not proceeding, the Executive Secretary may revoke the Approval Order.

3. R307-1-3.1.8 (A), UAC - Application of best available control technology (BACT) required at all emission points. This rule applies.

4. R307-1-3.1.8 (C), UAC - Approval of the UAQB is required before the Executive Secretary can approve a source under Section 3.6.5 which consumes more than 50% of a PSD increment. This rule does not apply to this NOI because a PSD permit is not being issued.

5. R307-1-3.1.8 (D), UAC - Enforceable offset of 1.2:1 required for new sources or modifications which would produce an emission increase greater than or equal to 50.00 tons per year of any combination of PM_{10}, SO_2, and NO_x. This is required in Salt Lake, Davis, and Utah Counties and in any area that impacts these three counties as defined in the rule. The effective date is November 15, 1990. This emission point emits less than 50.00 tons per year of combined PM_{10}, SO_2, and NO_x. Therefore, this rule does not apply.

6. R307-1-3.1.8 (D), UAC - Enforceable offset of 1:1 required for new sources or modifications which would produce an emission increase greater than or equal to 25.00 tons per year of any combination of PM_{10}, SO_2, and NO_x. This is required in Salt Lake, Davis, and Utah Counties and in any area that impacts these three counties as defined in the rule. The effective date is November 15, 1990. This emission point emits less than 25.00 tons per year of combined PM_{10}, SO_2, and NO_x. Therefore, this rule does not apply.

7. R307-1-3.1.9, UAC - Rules for relocation of temporary sources. This source is a permanent source. Therefore, this rule does not apply.

8. R307-1-3.1.12, UAC - Requirement for installation of low-NO_x burners on all existing sources whenever existing fuel combustion burners are replaced, unless the replacement is not physically practical or cost effective. The effective date is November 15, 1990. This rule does not apply to IC engines.

9. R307-1-3.2.1, UAC - Particulate emission limitations for existing sources which are located in a nonattainment area. This rule has been superseded by the PM_{10} SIP, except for Weber County. The effective date is November 15, 1990. The sources listed in Weber County are as follows:

   A. Farmers Grain Coop
   B. Fife Rock Products

C. Interpace Corporation
D. Parsons Asphalt Plant
E. Pillsbury Company
F. Teledyne Incinerator
G. Gibbons and Reed Asphalt

This source is not listed in the SIP. Therefore, this rule does not apply.

10. R307-1-3.3.2, UAC - Review requirements for new major sources or major modifications which are located in a nonattainment area or which impact a nonattainment area. This Notice of Intent does not represent a new major source or a major modification. Therefore, this rule will not apply.

11. R307-1-3.5, UAC - Emission inventory reporting requirements. This rule requires any source which emits 25 tons or more per year of any pollutant to submit an emission inventory to the Division of Air Quality at least every third year or as determined necessary by the Executive Secretary. Hill Air Force Base must comply with this rule if any specific source emits 25 tons or more per year of any pollutant.

12. R307-1-3.6.3, UAC - PSD Increment Consumption - This rule lists the allowable PSD increment consumption. Under the PSD rules, the entire state has been triggered for TSP, SO_2, and NO_x. The allowable increments are as follows:

<u>TSP</u>

A. Class I areas

1) 5 ug/m^3 (annual)

2) 10 ug/m^3 (24 hour)

B. Class II areas

1) 19 ug/m^3 (annual)

2) 37 ug/m^3 (24 hour)

<u>SO_2</u>

A. Class I areas

1) 2 ug/m^3 (annual)

2) 5 ug/m^3 (24 hour)

3) 25 ug/m^3 (3 hour)

B. Class II areas

1) 20 ug/m^3 (annual)

2) 91 ug/m^3 (24 hour)

3) 512 ug/m^3 (3 hour)

<u>NO_x</u>

A. Class I areas - 2.5 ug/m^3 (annual)

B. Class II areas - 25 ug/m^3 (annual)

There are also Class III increments, which do not apply in Utah. The above increments apply at all locations, unless the area is already nonattainment. The entire increment may not be available at all locations due to previously permitted sources consuming increment. Modeling analysis is not routinely performed for air pollution sources with emissions below the following levels:

Criteria for Screen Modeling
(Tons per Year)

	Non-Attainment Areas	Attainment Areas
SO_x	10	20
NO_x	20	20
PM_{10}	5	5
TSP	10	10
O_3	5	5
CO	25	50
VOC	10	20

13. R307-1-3.6.5 (b), UAC - Prevention of significant deterioration (PSD) review requirements for new major sources or major modifications. This Notice of Intent does not represent a new major source or a major modification under PSD rules. Therefore, this rule does not apply.

14. R307-1-3.6.6, UAC - Increment violations. This rule requires the UAQB to promulgate a plan and implement rules to eliminate any PSD increment violations which occur in the state. No known violations have yet occurred. This proposed Notice of Intent will consume negligible amounts of increment.

15. R307-1-3.8, UAC - Stack height rule. This rule limits the creditable height of stacks to that height determined to be good engineering practice. The formulas used to determine good engineering practice are found in 40 CFR 51.100. A deminimus height of 65 meters (213.2 feet) is allowed. Hill Air Force Base has no stacks which exceed 65 meters in height. It is in compliance with this rule.

16. R307-1-3.11, UAC - Visibility screening analysis requirements. This rule requires all new major sources or major modifications to undergo a visibility screening analysis to determine visibility impact on any mandatory Class I area. This Notice of Intent does not represent a new major source or a major modification under UACR rules. Therefore, this rule does not apply.

17. R307-1-4.1.2, UAC - 20% opacity limitation at all emission points unless a more stringent limitation is required by New Source Performance Standards (NSPS) or BACT or National Emission Standards for Hazardous Air Pollutants (NESHAPS). In this case, the 20% opacity limitation applies.

18. R307-1-4.1.9, UAC - EPA Method 9 to be used for visible emission observations. This rule applies.

19. R307-1-4.2.1, UAC - Sulfur content limitations in oil and coal used for combustion. This generator burns diesel fuel oil. The limitation is 0.85 pounds of sulfur per 10^6 BTU heat input. In this case, the limitation is 0.40 pounds of sulfur per 10^6 BTU heat input based on the AP-42 emission factor.

20. R307-1-4.6, UAC - Continuous Emission Monitoring Systems Program - Reporting and technical requirements for continuous emission monitoring systems. It covers breakdowns and quarterly reports for continuous monitoring systems. Section 4.6.5 states that this regulation applies to the following:

    A. Sources required to install CEMS as required by the following documents:

        1) NSPS
        2) State Implementation Plan
        3) Approval Order
        4) Consent Decree
        5) Administrative Orders and Agreements

    B. Any source that constructs after the promulgation of this rule two or more emission points, which may interfere with VEO's, shall install an opacity monitor on each stack.

    This emission point does not require a CEMS.

21. R307-1-4.7, UAC - Unavoidable breakdown reporting requirements. This rule applies. Section 4.7.1 discusses reporting requirements. A breakdown for any period longer than 2 hours must be reported to the Executive Secretary within 3 hours of the beginning of the breakdown, if reasonable, but in no case longer than 18 hours after the beginning of the breakdown. A written report is required within 7 calendar days. The report shall include the estimated quantity of pollutants (total and excess). Section 4.7.2 discusses penalties.

22. R307-1-4.9, UAC - Review requirements for volatile organic compound (VOC) sources located in a nonattainment area for ozone constructed in 1980 or earlier. This process is not covered in this rule.

23. R307-1-5, UAC - Emergency episode requirements. This rule applies.

24. R307-1-7, UAC - Air Pollution Episode Plan - This plan provides the basis for taking action to prevent air pollutant concentrations from reaching levels which could endanger the public health, or to abate such concentrations should they occur. All sources in a nonattainment area or impacting a nonattainment area must submit a plan outlining what they will do in an emergency episode. This regulation applies to Salt Lake, Davis, and Utah Counties.

25. New Source Performance Standards (NSPS) - There is no NSPS for this industrial process.

26. National Emission Standards for Hazardous Air Pollutants (NESHAPS) - There is no NESHAPS for this industrial process.

27. National Ambient Air Quality Standards (NAAQS) - This source is located in Davis County, which is a nonattainment area for ozone. The Division of Air Quality guidelines do not call for this source to be modeled for any pollutant. The Division has found through experience that, because of the small quantity of emissions involved and the conservative predictions made by modeling, a source or emission point of this small size is very unlikely to cause a new violation of the NAAQS. However, it will make a small contribution to the existing violation for ozone of the NAAQS.

28. 40 CFR 60.14, Definition of Modification - Any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which an NSPS standard applies. The following are not by themselves considered modifications:

    1) Maintenance, repair, and replacement

    2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility

    3) An increase in the hours of operation

    4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by 60.1, the existing facility was designed to accommodate that alternative use

    5) The addition or use of any system or device whose primary function is the reduction of air pollutants

    6) Relocation or change in ownership

    Also see Section 1.92, which is the State's definition. It is a planned increase in emissions. This Notice of Intent is a modification.

29. 40 CFR 60.15, Definition of Reconstruction - the replacement of components of an existing facility to such an extent that:

    1) The fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new facility and

    2) It is technologically and economically feasible to meet the applicable standards set forth in this part

    This Notice of Intent is not a reconstruction.

30. R307-1-1.89, Definition of Major Modification - It means any physical change in or change in the method of operation of a major source that would result in a significant net emission increase of any pollutant. A net emissions increase that is significant for VOC shall be considered significant for ozone. A physical change or change in the method of operation shall not include:

    A. Routine maintenance, repair, or replacement

    B. Use of an alternative fuel or raw material by reason of an order under Section 2a and b of the ESECA of 1974 or by reason of a natural gas curtailment plan pursuant to the

Federal Power Act

C. Use of an alternative fuel by reason of an order under Section 125 of the CAA

D. Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste

E. Use of an alternative fuel or raw material by a source:

1) which the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any enforceable permit condition

2) which the source is otherwise approved to use

F. An increase in the hours of operation or the production rate unless such change would be prohibited under any enforceable permit condition

G. Any change in ownership at a source

This Notice of Intent is not a major modification.

V. RECOMMENDED APPROVAL ORDER CONDITIONS

1. Hill Air Force Base shall install and operate the emergency generator in Building 575 according to the information submitted in the Notice of Intent dated March 16, 1992.

   A copy of this Approval Order shall be posted on site and shall be available to the employees who operate the air emission producing equipment. All employees who operate the air emission producing equipment shall receive instruction as to their responsibilities in operating the equipment in compliance with all of the relevant conditions.

2. The approved installation shall consist of a Caterpillar 600 KW generator, Model No. 3412 DITA or equivalent. Equivalency shall be determined by the Executive Secretary.

3. Visible emissions from the emergency generator shall not exceed 20% opacity after warm-up. Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9.

4. The hours of maintenance operation for the emergency diesel generator shall not exceed 100 hours per 12-month period without prior approval in accordance with R307-1-3.1, UAC. Compliance with the annual limitation shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using the previous 12 months. Records of the hours of operation shall be kept for all periods when the plant is in operation. Records of the hours of operation shall be made available to the Executive Secretary or his representative upon request and shall include a period of two years ending with the date of the request. The hours of operation shall be determined by an engine hour totalizer installed the engine. The records shall be kept on a daily basis.

   The 100 hours of operation shall not include actual emergency use. However, the hours of actual emergency use shall also be recorded.

5. The sulfur content of any fuel oil burned shall not exceed 0.40 pounds of sulfur per million BTU heat input as determined by ASTM Method D-4294-89. The sulfur content shall be tested if directed by the Executive Secretary.

6. All installations and facilities authorized by this Approval Order shall be adequately and properly maintained. The owner/operator shall comply with R307-1-3.5 and 4.7, UAC. R307-1-3.5, UAC addresses emission inventory reporting requirements. R307-1-4.7, UAC addresses unavoidable breakdown reporting requirements. The owner/operator shall calculate/estimate the excess emissions whenever a breakdown occurs. The sum total of excess emissions shall be reported to the Executive Secretary as directed for each calendar year.

7. The Executive Secretary shall be notified in writing upon start-up of the installation, as an initial compliance inspection is required. Eighteen months from the date of this Approval Order the Executive Secretary shall be notified in writing of the status of construction/installation if construction/installation is not completed. At that time the Executive Secretary shall require documentation of the continuous construction/installation of the operation and may revoke the Approval Order in accordance with R307-1-3.1.5, UAC.

Any future modifications to the equipment approved by this order must also be approved in accordance with R307-1-3.1.1, UAC.

This Approval Order in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including the Utah Air Conservation Rules.

Annual emissions for this emission point are currently calculated at the following values:

A. 0.09 ton/yr for particulate
B. 0.05 ton/yr for PM_{10}
C. 0.08 ton/yr for SO_2
D. 1.24 ton/yr for NO_x
E. 0.10 ton/yr for VOC
F. 0.26 ton/yr for CO
G. 0.02 ton/yr for aldehydes

These calculations are for the purposes of determining the applicability of PSD and nonattainment area major source requirements of the UACR.

DOROTHY\WP\REVIEWS\EG575.REV

UTAH DIVISION OF AIR QUALITY
NEW/MODIFIED SOURCE PLAN REVIEW

James R. Van Orman
Director of Environmental Management
Department of the Air Force
Headquarters Ogden Air Logistics Center
Hill Air Force Base, Utah 84056-5990

ENGINEER:	Dorothy L. Rogers
RE:	Replacement of Emergency Generator in Bldg 565 UTM: 4,161,000 N 455,450 E
	Davis County CDS A1 NA
DATE:	August 3, 1992
NOTICE OF INTENT DATED:	March 24, 1992
PLANT CONTACT:	Jay Gupta
PHONE NUMBER:	(801) 777-4618
PLANT LOCATION:	Building 565, Hill Air Force Base

FEES:

Filing Fee	$ 1500.00
Review Engineer - XX hours at $50.00/hour	$ 000.00
Modeler - XX hours at $50.00/hour	$ 000.00
Computer Usage Fee	$ 000.00
Notice to Paper	$ 00.00
Travel - 00 miles at $0.23/mile	$ 000.00
Total	$ 1500.00

APPROVALS:

Engineering Unit Manager DWR 8-11-92

Applicant Contact Made YC 8-5-92

Type of Source A1

Attainment Area	Yes	No
Nonattainment Area		
PM_{10}	Yes	No
SO_2	Yes	No
NO_x	Yes	No
CO	Yes	No
Ozone	Yes	No
NSPS	Yes	No
Subparts A and _____		
NESHAP	Yes	No
Subparts A and _____		
Toxic Pollutants	Yes	No
_____		
Toxic Major Source	Yes	No
(> 10 tpy or > 25 tpy combination)		
New Major Source	Yes	No
Major Modification	Yes	No
PSD Permit	Yes	No
Send to EPA	Yes	No

I. DESCRIPTION OF PROPOSAL

Hill Air Force Base is planning to replace an 80 KW diesel generator with a 225 KW diesel generator in Building 565. The new generator is a Caterpillar Serial No. 2AJ00536 emergency diesel generator. This generator will serve as a backup for emergency power to Weber and Davis County water pumps. This generator will be used a maximum of 60 hours per year.

This generator will use an existing 1,000 gallon above ground diesel storage tank for fuel supply.

This Approval Order will replace an Aproval Order dated September 18, 1980, which also included a 15 KW diesel generator in Building 1151 and a 110 gallon underground fuel storage tank.

II. EMISSION SUMMARY

Existing Emissions (from existing emergency generator in Building 565)

Particulate	0.01 ton/yr
PM_{10}	0.00
SO_2	0.01
NO_x	0.10
CO	0.02
VOC	0.01
Aldehydes	0.00

Proposed Emissions (from new generator)

Particulate	0.03 ton/yr
PM_{10}	0.02
SO_2	0.03
NO_x	0.47
CO	0.10
VOC	0.04
Aldehydes	0.01

Net Increase in Emissions

Particulate	0.02 ton/yr
PM_{10}	0.02
SO_2	0.02
NO_x	0.37
CO	0.08
VOC	0.03
Aldehydes	0.01

An entry of 0.00 does not mean the emissions are zero; it is intended to mean negligible emissions.

III. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) ANALYSIS

BACT for the generator set would be the use of a catalytic converter to control emissions of CO, NO_x and VOC. Also, a natural gas fueled generator would be considered BACT rather than diesel fueled generator.

In this case, the generator is proposed to be a stand-by generator that will only operate in emergency situations and will only be operated for approximately 100 hours per year. The addition of a control device to the generator to reduce emissions is not justified.

The Engineering Section is recommending that BACT for the generator be proper operation and maintenance and 20% opacity.

IV. APPLICABILITY OF FEDERAL REGULATIONS AND UTAH AIR CONSERVATION RULES

This Notice of Intent is for a minor modification to a major source. It is not a new major source or a major modification. The following federal regulations and state rules have been examined to determine their applicability to this Notice of Intent:

1. R307-1-3.1, UAC - Notice of Intent required for a modified source. This rule applies.

2. R307-1-3.1.5, UAC - Continuous program of construction required to begin within eighteen months of Approval Order date. If a continuous program of construction is not proceeding, the Executive Secretary may revoke the Approval Order.

3. R307-1-3.1.8 (A), UAC - Application of best available control technology (BACT) required at all emission points. This rule applies.

4. R307-1-3.1.8 (C), UAC - Approval of the UAQB is required before the Executive Secretary can approve a source under Section 3.6.5 which consumes more than 50% of a PSD increment. This rule does not apply to this NOI because a PSD permit is not being issued.

5. R307-1-3.1.8 (D), UAC - Enforceable offset of 1.2:1 required for new sources or modifications which would produce an emission increase greater than or equal to 50.00 tons per year of any combination of PM_{10}, SO_2, and NO_x. This is required in Salt Lake, Davis, and Utah Counties and in any area that impacts these three counties as defined in the rule. The effective date is November 15, 1990. This emission point emits less than 50.00 tons per year of combined PM_{10}, SO_2, and NO_x. Therefore, this rule does not apply.

6. R307-1-3.1.8 (D), UAC - Enforceable offset of 1:1 required for new sources or modifications which would produce an emission increase greater than or equal to 25.00 tons per year of any combination of PM_{10}, SO_2, and NO_x. This is required in Salt Lake, Davis, and Utah Counties and in any area that impacts these three counties as defined in the rule. The effective date is November 15, 1990. This emission point emits less than 25.00 tons per year of combined PM_{10}, SO_2, and NO_x. Therefore, this rule does not apply.

7. R307-1-3.1.9, UAC - Rules for relocation of temporary sources. This source is a permanent source. Therefore, this rule does not apply.

8. R307-1-3.1.12, UAC - Requirement for installation of low-NO_x burners on all existing sources whenever existing fuel combustion burners are replaced, unless the replacement is not physically practical or cost effective. The effective date is November 15, 1990. This rule does not apply to IC engines.

9. R307-1-3.2.1, UAC - Particulate emission limitations for existing sources which are located in a nonattainment area. This rule has been superseded by the PM_{10} SIP, except for Weber County. The effective date is November 15, 1990. The sources listed in Weber County are as follows:

A. Farmers Grain Coop
B. Fife Rock Products
C. Interpace Corporation
D. Parsons Asphalt Plant
E. Pillsbury Company
F. Teledyne Incinerator
G. Gibbons and Reed Asphalt

This source is not listed in the SIP. Therefore, this rule does not apply.

10. R307-1-3.3.2, UAC - Review requirements for new major sources or major modifications which are located in a nonattainment area or which impact a nonattainment area. This Notice of Intent does not represent a new major source or a major modification. Therefore, this rule will not apply.

11. R307-1-3.5, UAC - Emission inventory reporting requirements. This rule requires any source which emits 25 tons or more per year of any pollutant to submit an emission inventory to the Division of Air Quality at least every third year or as determined necessary by the Executive Secretary. Hill Air Force Base must comply with this rule.

12. R307-1-3.6.3, UAC - PSD Increment Consumption - This rule lists the allowable PSD increment consumption. Under the PSD rules, the entire state has been triggered for TSP, SO_2, and NO_x. The allowable increments are as follows:

<u>TSP</u>

A. Class I areas

1) 5 ug/m^3 (annual)

2) 10 ug/m^3 (24 hour)

B. Class II areas

1) 19 ug/m^3 (annual)

2) 37 ug/m^3 (24 hour)

<u>SO_2</u>

A. Class I areas

1) 2 ug/m^3 (annual)

2) 5 ug/m^3 (24 hour)

3) 25 ug/m^3 (3 hour)

B. Class II areas

1) 20 ug/m^3 (annual)

2) 91 ug/m^3 (24 hour)

3) 512 ug/m^3 (3 hour)

NO_x

A. Class I areas - 2.5 ug/m^3 (annual)

B. Class II areas - 25 ug/m^3 (annual)

There are also Class III increments, which do not apply in Utah. The above increments apply at all locations, unless the area is already nonattainment. The entire increment may not be available at all locations due to previously permitted sources consuming increment. Modeling analysis is not routinely performed for air pollution sources with emissions below the following levels:

Criteria for Screen Modeling
(Tons per Year)

	Non-Attainment Areas	Attainment Areas
SO_x	10	20
NO_x	20	20
PM_{10}	5	5
TSP	10	10
O_3	5	5
CO	25	50
VOC	10	20

13. R307-1-3.6.5 (b), UAC - Prevention of significant deterioration (PSD) review requirements for new major sources or major modifications. This Notice of Intent does not represent a new major source or a major modification under PSD rules. Therefore, this rule does not apply.

14. R307-1-3.6.6, UAC - Increment violations. This rule requires the UAQB to promulgate a plan and implement rules to eliminate any PSD increment violations which occur in the state. No known violations have yet occurred. This proposed Notice of Intent will consume negligible amounts of increment.

15. R307-1-3.8, UAC - Stack height rule. This rule limits the creditable height of stacks to that height determined to be good engineering practice. The formulas used to determine good engineering practice are found in 40 CFR 51.100. A deminimus height of 65 meters (213.2 feet) is allowed. Hill Air Force Base has no stacks which exceed 65 meters in height. It is in compliance with this rule.

16. R307-1-3.11, UAC - Visibility screening analysis requirements. This rule requires all new major sources or major modifications to undergo a visibility screening analysis to determine visibility impact on any mandatory Class I area. This Notice of Intent does not represent a new major source or a major modification under UACR rules. Therefore, this rule does not apply.

17. R307-1-4.1.2, UAC - 20% opacity limitation at all emission points unless a more stringent limitation is required by New Source Performance Standards (NSPS) or BACT or National Emission

Standards for Hazardous Air Pollutants (NESHAPS). In this case, the 20% opacity limitation applies.

18. R307-1-4.1.9, UAC - EPA Method 9 to be used for visible emission observations. This rule applies.

19. R307-1-4.2.1, UAC - Sulfur content limitations in oil and coal used for combustion. This generator burns diesel fuel oil. The limitation in the rule is 0.85 pounds of sulfur per 10^6 BTU heat input. BACT is 0.40 based on the AP-42 emission factor.

20. R307-1-4.6, UAC - Continuous Emission Monitoring Systems Program - Reporting and technical requirements for continuous emission monitoring systems. It covers breakdowns and quarterly reports for continuous monitoring systems. Section 4.6.5 states that this regulation applies to the following:

    A. Sources required to install CEMS as required by the following documents:

       1) NSPS
       2) State Implementation Plan
       3) Approval Order
       4) Consent Decree
       5) Administrative Orders and Agreements

    B. Any source that constructs after the promulgation of this rule two or more emission points, which may interfere with VEO's, shall install an opacity monitor on each stack.

    This emission point does not require a CEMS.

21. R307-1-4.7, UAC - Unavoidable breakdown reporting requirements. This rule applies. Section 4.7.1 discusses reporting requirements. A breakdown for any period longer than 2 hours must be reported to the Executive Secretary within 3 hours of the beginning of the breakdown, if reasonable, but in no case longer than 18 hours after the beginning of the breakdown. A written report is required within 7 calendar days. The report shall include the estimated quantity of pollutants (total and excess). Section 4.7.2 discusses penalties.

22. R307-1-4.9, UAC - Review requirements for volatile organic compound (VOC) sources located in a nonattainment area for ozone constructed in 1980 or earlier. This process is not covered in this rule.

23. R307-1-5, UAC - Emergency episode requirements. This rule applies.

24. New Source Performance Standards (NSPS) - There is no NSPS for this industrial process.

25. National Emission Standards for Hazardous Air Pollutants (NESHAPS) - There is no NESHAPS for this industrial process.

26. National Ambient Air Quality Standards (NAAQS) - This source is located in Davis County, which is a nonattainment area for ozone.

    The Division of Air Quality guidelines do not call for this source to be modeled for any pollutant. The Division has found through experience that, because of the small quantity of emissions

involved and the conservative predictions made by modeling, a source or emission point of this small size is very unlikely to cause a new violation of the NAAQS. However, it will make a small contribution to the existing violation for ozone of the NAAQS.

27. 40 CFR 60.14, Definition of Modification - Any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which an NSPS standard applies. The following are not by themselves considered modifications:

    1) Maintenance, repair, and replacement

    2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility

    3) An increase in the hours of operation

    4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by 60.1, the existing facility was designed to accommodate that alternative use

    5) The addition or use of any system or device whose primary function is the reduction of air pollutants

    6) Relocation or change in ownership

    Also see Section 1.92, which is the State's definition. It is a planned increase in emissions. This Notice of Intent is a modification.

28. 40 CFR 60.15, Definition of Reconstruction - the replacement of components of an existing facility to such an extent that:

    1) The fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new facility and

    2) It is technologically and economically feasible to meet the applicable standards set forth in this part

    This Notice of Intent is not a reconstruction.

29. R307-1-1.89, Definition of Major Modification - It means any physical change in or change in the method of operation of a major source that would result in a significant net emission increase of any pollutant. A net emissions increase that is significant for VOC shall be considered significant for ozone. A physical change or change in the method of operation shall not include:

    A. Routine maintenance, repair, or replacement

    B. Use of an alternative fuel or raw material by reason of an order under Section 2a and b of the ESECA of 1974 or by reason of a natural gas curtailment plan pursuant to the Federal Power Act

    C. Use of an alternative fuel by reason of an order under Section 125 of the CAA

D. Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste

E. Use of an alternative fuel or raw material by a source:

1) which the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any enforceable permit condition

2) which the source is otherwise approved to use

F. An increase in the hours of operation or the production rate unless such change would be prohibited under any enforceable permit condition

G. Any change in ownership at a source

This Notice of Intent is not a major modification.

V. RECOMMENDED APPROVAL ORDER CONDITIONS

1. Hill Air Force Base shall install and operate the emergency generator in Building 565 according to the information submitted in the Notice of Intent dated March 24, 1992.

A copy of this Approval Order shall be posted on site and shall be available to the employees who operate the air emission producing equipment. All employees who operate the air emission producing equipment shall receive instruction as to their responsibilities in operating the equipment in compliance with all of the relevant conditions.

2. This Approval Order shall replace the Approval Order dated September 18, 1980.

3 The approved installation shall consist of:

A. Caterpillar 225 KW generator, Serial No. 2AJ00536 or equivalent in Building 565

B. Existing Onan 15 KW generator, Model No. 15-ORDJC-3CR or equivalent in Building 1151

Equivalency shall be determined by the Executive Secretary.

4. Visible emissions from the emergency generators shall not exceed 20% opacity after warm-up. Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9.

5. The hours of maintenance operation for the emergency diesel generator in Building 565 shall not exceed 100 hours per 12-month period without prior approval in accordance with R307-1-3.1, UAC. Compliance with the annual limitation shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using the previous 12 months. Records of the hours of operation shall be kept for all periods when the plant is in operation. Records of the hours of operation shall be made available to the Executive Secretary or his representative upon request and shall include a period of two years ending with the date of the request. The hours of operation shall be determined by an engine hour totalizer installed the

engine. The records shall be kept on a daily basis.

The 100 hours of operation shall not include actual emergency use. However, the hours of actual emergency use shall also be recorded.

6. The sulfur content of any fuel oil burned shall not exceed 0.40 pounds of sulfur per million BTU heat input as determined by ASTM Method D-4294-89. The sulfur content shall be tested if directed by the Executive Secretary.

7. All installations and facilities authorized by this Approval Order shall be adequately and properly maintained. The owner/operator shall comply with R307-1-3.5 and 4.7, UAC. R307-1-3.5, UAC addresses emission inventory reporting requirements. R307-1-4.7, UAC addresses unavoidable breakdown reporting requirements. The owner/operator shall calculate/estimate the excess emissions whenever a breakdown occurs. The sum total of excess emissions shall be reported to the Executive Secretary as directed for each calendar year.

8. The Executive Secretary shall be notified in writing upon start-up of the installation, as an initial compliance inspection is required. Eighteen months from the date of this Approval Order the Executive Secretary shall be notified in writing of the status of construction/installation if construction/installation is not completed. At that time the Executive Secretary shall require documentation of the continuous construction/installation of the operation and may revoke the Approval Order in accordance with R307-1-3.1.5, UAC.

Any future modifications to the equipment approved by this order must also be approved in accordance with R307-1-3.1.1, UAC.

This Approval Order in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including the Utah Air Conservation Rules.

Annual emissions for this emission point (225 KW diesel generator in Bldg 565 and 15 KW diesel generator in Bldg 1151) are currently calculated at the following values:

A. 0.03 ton/yr for particulate
B. 0.02 ton/yr for PM_{10}
C. 0.03 ton/yr for SO_2
D. 0.48 ton/yr for NO_x
E. 0.04 ton/yr for VOC
F. 0.10 ton/yr for CO
G. 0.01 ton/yr for aldehydes

An entry of 0.00 does not mean the emissions are actually zero; it is intended to mean negligible emissions.

These calculations are for the purposes of determining the applicability of PSD and nonattainment area major source requirements of the UACR.

DOROTHY\WP\REVIEWS\EG565.REV

UTAH DIVISION OF AIR QUALITY
NEW/MODIFIED SOURCE PLAN REVIEW

James R. Van Orman
Director of Environmental Management
Department of the Air Force
Headquarters Ogden Air Logistics Center
Hill Air Force Base, Utah 84056-5990

ENGINEER:	Dorothy L. Rogers
RE:	Installation of 500 KW Emergency Generator in Building 14 and Relocation of 350 KW Emergency Generator from Building 221 to Building 14 Davis County CDS A1 NA UTM: 4,161,000 N 455,450 E
DATE:	August 3, 1992
NOTICE OF INTENT DATED:	March 24, 1992
PLANT CONTACT:	Jay Gupta
PHONE NUMBER:	(801) 777-4618
PLANT LOCATION:	Building 14, Hill Air Force Base

FEES:

Filing Fee	$ 1500.00
Review Engineer - XX hours at $50.00/hour	$ 000.00
Modeler - XX hours at $50.00/hour	$ 000.00
Computer Usage Fee	$ 000.00
Notice to Paper	$ 00.00
Travel - 00 miles at $0.23/mile	$ 000.00
Total	$ 1500.00

APPROVALS:

Engineering Unit Manager DR 8-3-92

Applicant Contact Made DL 8-5-92

Type of Source A1

Attainment Area	**Yes**	No
Nonattainment Area		
PM_{10}	Yes	**No**
SO_2	Yes	**No**
NO_X	Yes	**No**
CO	Yes	**No**
Ozone	**Yes**	No
NSPS	Yes	**No**
Subparts A and _____		
NESHAP	Yes	**No**
Subparts A and _____		
Toxic Pollutants	Yes	**No**
_____		
Toxic Major Source	Yes	**No**
(> 10 tpy or > 25 tpy combination)		
New Major Source	Yes	**No**
Major Modification	Yes	**No**
PSD Permit	Yes	**No**
Send to EPA	Yes	**No**

I. DESCRIPTION OF PROPOSAL

Hill Air Force Base is planning to install a 500 KW diesel generator in Building 14.

The new generator is a Caterpillar Model No. 3412 DITA emergency diesel generator. This generator will serve as a backup for emergency power to airfield runway and beacon lights. This generator will be used a maximum of 100 hours per year for maintenance.

A 5,000 gallon above ground diesel storage tank and a 400 gallon day tank will also be installed to store fuel for the emergency generator. The emissions from the storage tanks are negligible.

Hill Air Force Base also is planning to relocate a 350 KW generator Cummins Model No. NTA855 from Building 221 to Building 14. This generator will also be used a maximum of 100 hours per year. This existing generator does not have an Approval Order.

II. EMISSION SUMMARY

Existing Emissions (from relocated emergency generator)

Particulate	0.00 ton/yr
PM_{10}	0.00
SO_2	0.00
NO_x	0.08
CO	0.02
VOC	0.00
Aldehydes	0.00

Proposed Emissions (from new generator)

Particulate	0.01 ton/yr
PM_{10}	0.01
SO_2	0.01
NO_x	0.18
CO	0.04
VOC	0.01
Aldehydes	0.00

Net Increase in Emissions

Particulate	0.01 ton/yr
PM_{10}	0.01
SO_2	0.01
NO_x	0.10
CO	0.02
VOC	0.01
Aldehydes	0.00

III. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) ANALYSIS

BACT for the generator set would be the use of a catalytic converter to control emissions of CO, NO_x, and VOC. Also, a natural gas fueled generator would be considered BACT rather than a diesel fueled generator.

In this case, the emergency generators are proposed to be stand-by generators that will only operate in emergency situations and will only be operated for approximately 100 hours per year for maintenance. The addition of control

devices to the generators is not justified.

The Engineering Section is recommending that BACT for the generators be proper operation and maintenance and 20% opacity.

IV. APPLICABILITY OF FEDERAL REGULATIONS AND UTAH AIR CONSERVATION RULES

This Notice of Intent is for a minor modification to a major source. It is not a new major source or a major modification. The following federal regulations and state rules have been examined to determine their applicability to this Notice of Intent:

1. R307-1-3.1, UAC - Notice of Intent required for a modified source. This rule applies.

2. R307-1-3.1.5, UAC - Continuous program of construction required to begin within eighteen months of Approval Order date. If a continuous program of construction is not proceeding, the Executive Secretary may revoke the Approval Order.

3. R307-1-3.1.8 (A), UAC - Application of best available control technology (BACT) required at all emission points. This rule applies.

4. R307-1-3.1.8 (C), UAC - Approval of the UAQB is required before the Executive Secretary can approve a source under Section 3.6.5 which consumes more than 50% of a PSD increment. This rule does not apply to this NOI because a PSD permit is not being issued.

5. R307-1-3.1.8 (D), UAC - Enforceable offset of 1.2:1 required for new sources or modifications which would produce an emission increase greater than or equal to 50.00 tons per year of any combination of PM_{10}, SO_2, and NO_x. This is required in Salt Lake, Davis, and Utah Counties and in any area that impacts these three counties as defined in the rule. The effective date is November 15, 1990. This emission point emits less than 50.00 tons per year of combined PM_{10}, SO_2, and NO_x. Therefore, this rule does not apply.

6. R307-1-3.1.8 (D), UAC - Enforceable offset of 1:1 required for new sources or modifications which would produce an emission increase greater than or equal to 25.00 tons per year of any combination of PM_{10}, SO_2, and NO_x. This is required in Salt Lake, Davis, and Utah Counties and in any area that impacts these three counties as defined in the rule. The effective date is November 15, 1990. This emission point emits less than 25.00 tons per year of combined PM_{10}, SO_2, and NO_x. Therefore, this rule does not apply.

7. R307-1-3.1.9, UAC - Rules for relocation of temporary sources. This source is a permanent source. Therefore, this rule does not apply.

8. R307-1-3.1.12, UAC - Requirement for installation of low-NO_x burners on all existing sources whenever existing fuel combustion burners are replaced, unless the replacement is not physically practical or cost effective. The effective date is November 15, 1990. This rule does not apply to IC engines.

9. R307-1-3.2.1, UAC - Particulate emission limitations for existing sources which are located in a nonattainment area. This rule has been superseded by the PM_{10} SIP, except for Weber County. The effective date is November 15, 1990. The sources listed in Weber

County are as follows:

A. Farmers Grain Coop
B. Fife Rock Products
C. Interpace Corporation
D. Parsons Asphalt Plant
E. Pillsbury Company
F. Teledyne Incinerator
G. Gibbons and Reed Asphalt

This source is not listed in the SIP. Therefore, this rule does not apply.

10. R307-1-3.3.2, UAC - Review requirements for new major sources or major modifications which are located in a nonattainment area or which impact a nonattainment area. This Notice of Intent does not represent a new major source or a major modification. Therefore, this rule will not apply.

11. R307-1-3.5, UAC - Emission inventory reporting requirements. This rule requires any source which emits 25 tons or more per year of any pollutant to submit an emission inventory to the Division of Air Quality at least every third year or as determined necessary by the Executive Secretary. Hill Air Force Base must comply with this rule.

12. R307-1-3.6.3, UAC - PSD Increment Consumption - This rule lists the allowable PSD increment consumption. Under the PSD rules, the entire state has been triggered for TSP, SO_2, and NO_x. The allowable increments are as follows:

<u>TSP</u>

A. Class I areas

1) 5 ug/m^3 (annual)

2) 10 ug/m^3 (24 hour)

B. Class II areas

1) 19 ug/m^3 (annual)

2) 37 ug/m^3 (24 hour)

<u>SO_2</u>

A. Class I areas

1) 2 ug/m^3 (annual)

2) 5 ug/m^3 (24 hour)

3) 25 ug/m^3 (3 hour)

B. Class II areas

1) 20 ug/m^3 (annual)

2) 91 ug/m^3 (24 hour)

3) 512 ug/m^3 (3 hour)

NO$_x$

A. Class I areas - 2.5 ug/m^3 (annual)

B. Class II areas - 25 ug/m^3 (annual)

There are also Class III increments, which do not apply in Utah. The above increments apply at all locations, unless the area is already nonattainment. The entire increment may not be available at all locations due to previously permitted sources consuming increment. Modeling analysis is not routinely performed for air pollution sources with emissions below the following levels:

Criteria for Screen Modeling
(Tons per Year)

	Non-Attainment Areas	Attainment Areas
SO_x	10	20
NO_x	20	20
PM_{10}	5	5
TSP	10	10
O_3	5	5
CO	25	50
VOC	10	20

13. R307-1-3.6.5 (b), UAC - Prevention of significant deterioration (PSD) review requirements for new major sources or major modifications. This Notice of Intent does not represent a new major source or a major modification under PSD rules. Therefore, this rule does not apply.

14. R307-1-3.6.6, UAC - Increment violations. This rule requires the UAQB to promulgate a plan and implement rules to eliminate any PSD increment violations which occur in the state. No known violations have yet occurred. This proposed Notice of Intent will consume negligible amounts of increment.

15. R307-1-3.8, UAC - Stack height rule. This rule limits the creditable height of stacks to that height determined to be good engineering practice. The formulas used to determine good engineering practice are found in 40 CFR 51.100. A deminimus height of 65 meters (213.2 feet) is allowed. Hill Air Force Base has no stacks which exceed 65 meters in height. It is in compliance with this rule.

16. R307-1-3.11, UAC - Visibility screening analysis requirements. This rule requires all new major sources or major modifications to undergo a visibility screening analysis to determine visibility impact on any mandatory Class I area. This Notice of Intent does not represent a new major source or a major modification under UACR rules. Therefore, this rule does not apply.

17. R307-1-4.1.2, UAC - 20% opacity limitation at all emission points unless a more stringent limitation is required by New Source Performance Standards (NSPS) or BACT or National Emission Standards for Hazardous Air Pollutants (NESHAPS). In this case, the 20% opacity limitation applies.

18. R307-1-4.1.9, UAC - EPA Method 9 to be used for visible emission observations. This rule applies.

19. R307-1-4.2.1, UAC - Sulfur content limitations in oil and coal used for combustion. These generators burn diesel fuel oil. The limitation in the rule is 0.85 pounds of sulfur per 10^6 BTU heat input. The fuel oil in this case is limited to 0.40 pounds of sulfur per 10^6 BTU heat input based on the AP-42 emission factor.

20. R307-1-4.6, UAC - Continuous Emission Monitoring Systems Program - Reporting and technical requirements for continuous emission monitoring systems. It covers breakdowns and quarterly reports for continuous monitoring systems. Section 4.6.5 states that this regulation applies to the following:

    A. Sources required to install CEMS as required by the following documents:

        1) NSPS
        2) State Implementation Plan
        3) Approval Order
        4) Consent Decree
        5) Administrative Orders and Agreements

    B. Any source that constructs after the promulgation of this rule two or more emission points, which may interfere with VEO's, shall install an opacity monitor on each stack.

    This emission point does not require a CEMS.

21. R307-1-4.7, UAC - Unavoidable breakdown reporting requirements. This rule applies. Section 4.7.1 discusses reporting requirements. A breakdown for any period longer than 2 hours must be reported to the Executive Secretary within 3 hours of the beginning of the breakdown, if reasonable, but in no case longer than 18 hours after the beginning of the breakdown. A written report is required within 7 calendar days. The report shall include the estimated quantity of pollutants (total and excess). Section 4.7.2 discusses penalties.

22. R307-1-4.9, UAC - Review requirements for volatile organic compound (VOC) sources located in a nonattainment area for ozone constructed in 1980 or earlier. This process is not covered in this rule.

23. R307-1-5, UAC - Emergency episode requirements. This rule applies.

24. New Source Performance Standards (NSPS) - There is no NSPS for this industrial process.

25. National Emission Standards for Hazardous Air Pollutants (NESHAPS) - There is no NESHAPS for this industrial process.

26. National Ambient Air Quality Standards (NAAQS) - This source is located in Davis County, which is a nonattainment area for ozone.

The Division of Air Quality guidelines do not call for this source to be modeled for any pollutant. The Division has found through experience that, because of the small quantity of emissions involved and the conservative predictions made by modeling, a source or emission point of this small size is very unlikely to cause a new violation of the NAAQS. However, it will make a small contribution to the existing violation for ozone of the NAAQS.

27. 40 CFR 60.14, Definition of Modification - Any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which an NSPS standard applies. The following are not by themselves considered modifications:

    1) Maintenance, repair, and replacement

    2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility

    3) An increase in the hours of operation

    4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by 60.1, the existing facility was designed to accommodate that alternative use

    5) The addition or use of any system or device whose primary function is the reduction of air pollutants

    6) Relocation or change in ownership

    Also see Section 1.92, which is the State's definition. It is a planned increase in emissions. This Notice of Intent is a modification.

28. 40 CFR 60.15, Definition of Reconstruction - the replacement of components of an existing facility to such an extent that:

    1) The fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new facility and

    2) It is technologically and economically feasible to meet the applicable standards set forth in this part

    This Notice of Intent is not a reconstruction.

29. R307-1-1.89, Definition of Major Modification - It means any physical change in or change in the method of operation of a major source that would result in a significant net emission increase of any pollutant. A net emissions increase that is significant for VOC shall be considered significant for ozone. A physical change or change in the method of operation shall not include:

    A. Routine maintenance, repair, or replacement

    B. Use of an alternative fuel or raw material by reason of an order under Section 2a and b of the ESECA of 1974 or by reason of a natural gas curtailment plan pursuant to the Federal Power Act

C. Use of an alternative fuel by reason of an order under Section 125 of the CAA

D. Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste

E. Use of an alternative fuel or raw material by a source:

1) which the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any enforceable permit condition

2) which the source is otherwise approved to use

F. An increase in the hours of operation or the production rate unless such change would be prohibited under any enforceable permit condition

G. Any change in ownership at a source

This Notice of Intent is not a major modification.

V. RECOMMENDED APPROVAL ORDER CONDITIONS

1. Hill Air Force Base shall install and operate the emergency generators in Building 14 according to the information submitted in the Notice of Intent dated March 16, 1992.

A copy of this Approval Order shall be posted on site and shall be available to the employees who operate the air emission producing equipment. All employees who operate the air emission producing equipment shall receive instruction as to their responsibilities in operating the equipment in compliance with all of the relevant conditions.

2. The approved installation shall consist of the following:

A. Caterpillar 500 KW generator, Model No. 3412 DITA or equivalent located in Building 14

B. Cummins 350 KW, Model No. NTA855 generator or equivalent (relocated from Building 221 to Building 14)

C. Four diesel fuel storage tanks - 250, 400, 2000, and 5000 gallons

Equivalency shall be determined by the Executive Secretary.

3. Visible emissions from the emergency generators shall not exceed 20% opacity after warm-up. Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9.

4. The hours of maintenance operation for the emergency diesel generators shall not exceed 100 hours each per 12-month period without prior approval in accordance with R307-1-3.1, UAC. Compliance with the annual limitation shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using the previous 12 months. Records of the hours of operation shall be kept for all periods when the plant is in operation. Records of the hours of operation shall be made available to the Executive Secretary or

his representative upon request and shall include a period of two years ending with the date of the request. The hours of operation shall be determined by an engine hour totalizer installed on each engine. The records shall be kept on a daily basis.

The 100 hours of operation shall not include actual emergency use. However, the hours of actual emergency use shall also be recorded.

5. The sulfur content of any fuel oil burned shall not exceed 0.40 pounds of sulfur per million BTU heat input as determined by ASTM Method D-4294-89. The sulfur content shall be tested if directed by the Executive Secretary.

6. All installations and facilities authorized by this Approval Order shall be adequately and properly maintained. The owner/operator shall comply with R307-1-3.5 and 4.7, UAC. R307-1-3.5, UAC addresses emission inventory reporting requirements. R307-1-4.7, UAC addresses unavoidable breakdown reporting requirements. The owner/operator shall calculate/estimate the excess emissions whenever a breakdown occurs. The sum total of excess and normal emissions shall be reported to the Executive Secretary as directed for each calendar year.

7. The Executive Secretary shall be notified in writing upon start-up of the installation, as an initial compliance inspection is required. Eighteen months from the date of this Approval Order the Executive Secretary shall be notified in writing of the status of construction/installation if construction/installation is not completed. At that time the Executive Secretary shall require documentation of the continuous construction/installation of the operation and may revoke the Approval Order in accordance with R307-1-3.1.5, UAC.

Any future modifications to the equipment approved by this order must also be approved in accordance with R307-1-3.1.1, UAC.

This Approval Order in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including the Utah Air Conservation Rules.

Annual emissions for this emission point (500 KW and 350 KW emergency Generators in Building 14) are currently calculated at the following values:

A. 0.01 ton/yr for Particulate
B. 0.01 ton/yr for PM_{10}
C. 0.01 ton/yr for SO_2
D. 0.18 ton/yr for NO_x
E. 0.01 ton/yr for VOC
F. 0.04 ton/yr for CO
G. 0.00 ton/yr for aldehydes

These calculations are for the purposes of determining the applicability of PSD and nonattainment area major source requirements of the UACR.

DOROTHY\WP\REVIEWS\EG14.REV

DLR
WF

State of Utah
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

Norman H. Bangerter
Governor
Kenneth L. Alkema
Executive Director
F. Burnell Cordner
Director

1950 West North Temple
Salt Lake City, Utah
(801) 536-4000
(801) 536-4099 Fax

Reply to: State of Utah
Division of Air Quality
Department of Environmental Quality
Salt Lake City, Utah 84114-4820

DAQE-617-92

June 26, 1992

Jay Gupta
Department of the Air Force
Headquarters Ogden Logistics Center (AFLC)
Hill Air Force Base, Utah 84056-5990

Re: Additional Information Required for Construction of Emergency Generators and Media Blast Booth

Dear Mr. Gupta:

The following information is needed to complete the engineering review for the Notice of Intent to install emergency generators in Buildings 575 and 14; and a media blast booth in Building 48:

1. The date of the Approval Order for the existing 300 KW generator in Building 575 (if it has an Approval Order);

2. The date of the Approval Order for the existing 350 KW generator that is being relocated from Building 221 to Building 14 (if it has an Approval Order);

3. The manufacturer and model number for the existing 350 KW generator that is being relocated from Building 221 to Building 14; and,

4. The manufacturer and model number for the media blast booth proposed for building 48.

Questions regarding this letter or other air quality matters may be addressed by contacting me at (801) 536-4000. Your earliest attention to this matter will allow the Division to complete the engineering review in a timely manner.

Sincerely,

Dorothy L. Rogers

Dorothy L. Rogers
Environmental Health Engineer
Utah Division of Air Quality

DLR:cl

cc: Davis County Health Department

4.2.4-698

Printed on recycled paper

June 11, 1992 dt

Emissions from Paint Media Blast Booth in Bldg 48

Emissions are controlled by a fabric filter 99% + control

Assume TSP = 0.02 gr/dscf
PM_{10} = 0.016 gr/dscf

Exhaust rate = 7,000 cfm Elevation 4500'

$$DSCFM = 7000\ cfm \times \frac{25.35}{29.92} \times \frac{528}{528} \times \frac{97}{100} = 5754\ dscfm$$

Emissions:

TSP	1.0 lb/hr	1.04 TPY
PM_{10}	0.8 lb/hr	0.83 TPY.

$$\text{Operation hrs} = 8\ \frac{hr}{day}\ \ 5\ \frac{day}{wk}\ \ 52\ \frac{wk}{yr} = 2080\ \frac{hr}{yr}$$

Exhaust rate ACFM = 7000 at 68°F and 29.92" Hg

Assume conservative 3% moisture content

6790 DSCFM

TSP	1.16 lb/hr	1.21 TPY
PM_{10}	0.93 lb/hr	1.0 TPY.

Emergency Generator Bldg 575 - 100 hr/yr max operation
Existing emissions

	g/kw-hr	kw-hr/yr	lb/yr	ton/yr
tsp	1.34	30000	88.55	0.04
pm10	0.74		48.90	0.02
so2	1.25		82.60	0.04
nox	18.8		1242.29	0.62
co	4.06		268.28	0.13
voc	1.5		99.12	0.05
ald	0.28		18.50	0.01

Proposed emissions

	g/kw-hr	kw-hr/yr	lb/yr	ton/yr
tsp	1.34	60000	177.09	0.09
pm10	0.74		97.80	0.05
so2	1.25		165.20	0.08
nox	18.8		2484.58	1.24
co	4.06		536.56	0.27
voc	1.5		198.24	0.10
ald	0.28		37.00	0.02

Increase emissions

	lb/yr	ton/yr
tsp	88.55	0.04
pm10	48.90	0.02
so2	82.60	0.04
nox	1242.29	0.62
co	268.28	0.13
voc	99.12	0.05
ald	18.50	0.01

Emission Factors are from AP-42 Table 3.3-1

Storage Tank is a 2000 gallon above ground diesel tank and 250 gallon day tank
Emissions from the storage tanks are negligible

Emergency Generator Bldg14 - 100 hr/yr max operation
Existing emissions

	g/kw-hr	kw-hr/yr	lb/yr	ton/yr
tsp	1.34	3500	10.33	0.01
pm10	0.74		5.70	0.00
so2	1.25		9.64	0.00
nox	18.8		144.93	0.07
co	4.06		31.30	0.02
voc	1.5		11.56	0.01
ald	0.28		2.16	0.00

Proposed emissions

	g/kw-hr	kw-hr/yr	lb/yr	ton/yr
tsp	1.34	8500	25.09	0.01
pm10	0.74		13.85	0.01
so2	1.25		23.40	0.01
nox	18.8		351.98	0.18
co	4.06		76.01	0.04
voc	1.5		28.08	0.01
ald	0.28		5.24	0.00

Increase emissions

	lb/yr	ton/yr
tsp	14.76	0.01
pm10	8.15	0.00
so2	13.77	0.01
nox	207.05	0.10
co	44.71	0.02
voc	16.52	0.01
ald	3.08	0.00

Emission Factors are from AP-42 Table 3.3-1

Storage Tank is a 5000 gallon above ground diesel tank and 400 gallon day tank
Emissions from the storage tanks are negligible

July 31/92 DLR

Calculation for lb of S/hr

Emission Factor

1.25 g SO_2/kw-hr

$$1.25 \frac{g\ SO_2}{kw\text{-}hr} \times \frac{mole}{64.07\ g\ SO_2} \times \frac{32.07\ g\ S}{mol} \times \frac{1\ lb}{454\ g} \times \frac{1\ kw\text{-}hr}{3410\ BTU} \times \frac{1\times10^6\ BTU}{mmBTU} = 0.40 \frac{lb\ S}{mmBTU}$$

Emergency Generator Bldg 565 - 60 hr/yr max operation

Existing emissions

	g/kw-hr	kw-hr/yr	lb/yr	ton/yr
tsp	1.34	4800	14.17	0.01
pm10	0.74		7.82	0.00
so2	1.25		13.22	0.01
nox	18.8		198.77	0.10
co	4.06		42.93	0.02
voc	1.5		15.86	0.01
ald	0.28		2.96	0.00

Proposed emissions

	g/kw-hr	kw-hr/yr	lb/yr	ton/yr
tsp	1.34	13500	39.85	0.02
pk10	0.74		22.00	0.01
so2	1.25		37.17	0.02
nox	18.8		559.03	0.28
co	4.06		120.73	0.06
voc	1.5		44.60	0.02
ald	0.28		8.33	0.00

Increase emissions

	lb/yr	ton/yr
tsp	25.68	0.01
pk10	14.18	0.01
so2	23.95	0.01
nox	360.26	0.18
co	77.80	0.04
voc	28.74	0.01
ald	5.37	0.00

Aug 10, 1992

Proposed Emissions based on 100 hr/yr DLR

22500 kw-hr/yr

TSP	0.03 TPY
PM10	0.02
SO_2	0.03
NOx	0.47
CO	0.10
VOC	~~0.10~~ 0.04
Ald	0.01

Emission Factors are from AP-42 Table 3.3-1

Storage Tank is a 1000 gallon above ground diesel tank
Emissions from the storage tank are negligible

Emissions for 15 kw generator in Bldg 1151 taken from AQ dated Sept 18/80

	lb/yr
TSP	~~10.2~~ 1.5
PM_{10}	0.83
SO_2	1.4
NOx	21.06
CO	4.55
VOC	1.68
ald	0.31

Total for Bldg 565 & 1151 based on 60 hr/yr

	TON/yr	based on 100 hr/yr
TSP	0.02	0.03
PM_{10}	0.01	0.02
SO_2	0.02	0.03
NOx	0.29	0.48
CO	0.06	0.10
VOC	0.02	0.04
ald	0.00	0.01

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS OGDEN AIR LOGISTICS CENTER (AFLC)
HILL AIR FORCE BASE, UTAH 84056-5990

RECEIVED
MAR 17 1992
Air Quality

16 MAR 1992

Mr F. Burnell Cordner, Executive Secretary
Department of Environmental Quality
Division of Air Quality
1950 W. North Temple
Salt Lake City UT 84114-4820

Re: Notice of Intent to Construct Emergency Generators Bldgs 575, 14, and Media Blast Booth Bldg 48

Dear Mr Cordner

In compliance with Section 3.1 of the State Air Conservation Regulations, we submit the attached Notice of Intent to Construct. If this office can provide additional information, please feel free to contact Jay Gupta at 777-4618.

Sincerely

James R. VanOrman

JAMES R. VAN ORMAN
Director of Environmental Management

1 Atch
Notice of Intent to Construct

Emergency Diesel Generators Bldgs 575 & 14

1. Project Description:
Three emergency generators are planned. An existing 300 KW generator in Bldg 575 will be replaced with a Catterpillar's Model 3412 DITA or equal 600 KW generator using the existing 2,000 gallons diesel above ground storage tank and a 250 gallon day tank. This generator will serve as a back-up to Industrial Waste Water Treatment Plant equipment in the event of power outage.
A 500 KW Caterpillar Model 3412 DIT or approved equal together with a 5,000 gallons above ground diesel storage tank and a 400 gallon day tank at Bldg 14 will serve as a back-up for the Airfield Runway and Beacon Lights. In addition an existing 350 KW generator will be relocated from Bldg 221 to Bldg 14.

2. Pollutant Emissions:
The source of air pollution from these projects involve exhaust emissions from diesel engines. Evaporative emissions from diesel tanks are negligible. Since these generators serve only as back-up power units, they will be in operation only during power outage and for periodic maintenance start-ups. Based on operating history of emergency generators on base, we estimate approximately an average of 40 hours and a maximum of 80-100 hours run time for each generator per year.
Emissions are calculated using the EPA publication, AP-42, Compilation of Air Pollutant Emission Factors.
Total KW = 1,450
Existing KW = 650
Incremental KW = 800
Emissions (gms/yr)= Emission Factor (gm/KW-hr) X 40 hrs/yr X 1,450 KW

		Emissions		
Pollutant	E.F.(gm/KW-hr)	Lbs/yr	Ton/yr	Max. Ton/yr
CO	4.06	518.7	.26	0.52
HC	1.5	191.6	.1	0.2
NOX	18.8	2401	1.2	2.4
Aldehydes	0.28	35.7	0.02	0.04
SOX	1.25	159.7	0.08	0.16
Particulate	1.34	171.1	0.08	0.16

3. Air Cleaning Devices: No controls are proposed because these emergency power units will be operational only during emergencies and power outages.

4. Emission Points: Each diesel generator will have exhaust approximately 10 feet above the surrounding ground elevation.

5. Sample Points: No sampling points are provided

6. Operating Schedule: Diesel generators will be run only during power outage or scheduled maintenance start-ups.

Media Blast Booth Bldg 48

1. Project Description:
The media blast booth is a 10'X10'X20' metal enclosure complete with the blast/reclaimer assembly comprising of a cyclone seperator, a storage hopper, a low profile hopper, and a blast machine. The cyclone blower vacuums blasting residue from the low profile hopper on the enclosure floor. As the residue enters the cyclone, the cyclone separates undamaged blast media from the other debris and dust. The undamaged, reusable media drops through the cyclone's vibrating screen into the storage hopper. The reclaimed media from the storage hopper gravity feeds into the blast machine. The debris and dust from the cyclone are drawn into the dust collector. A schematic of the media blast unit is Atch 1. Atch 2 shows blast/reclaimer assembly. The blast media shall be Poly V plastic media. The components to be blasted include aircraft wheels, panels, ladders, engine run screens, tool boxes, carts and ground support equipment.

2. Air Emissions:
Particulate emissions will be controlled using high efficiency 24 cartridge dust collector assembly. The dust collector is 99.9 % efficient to particulate size one micron and above and virtually 100 % efficiency for particulate two micron and above.

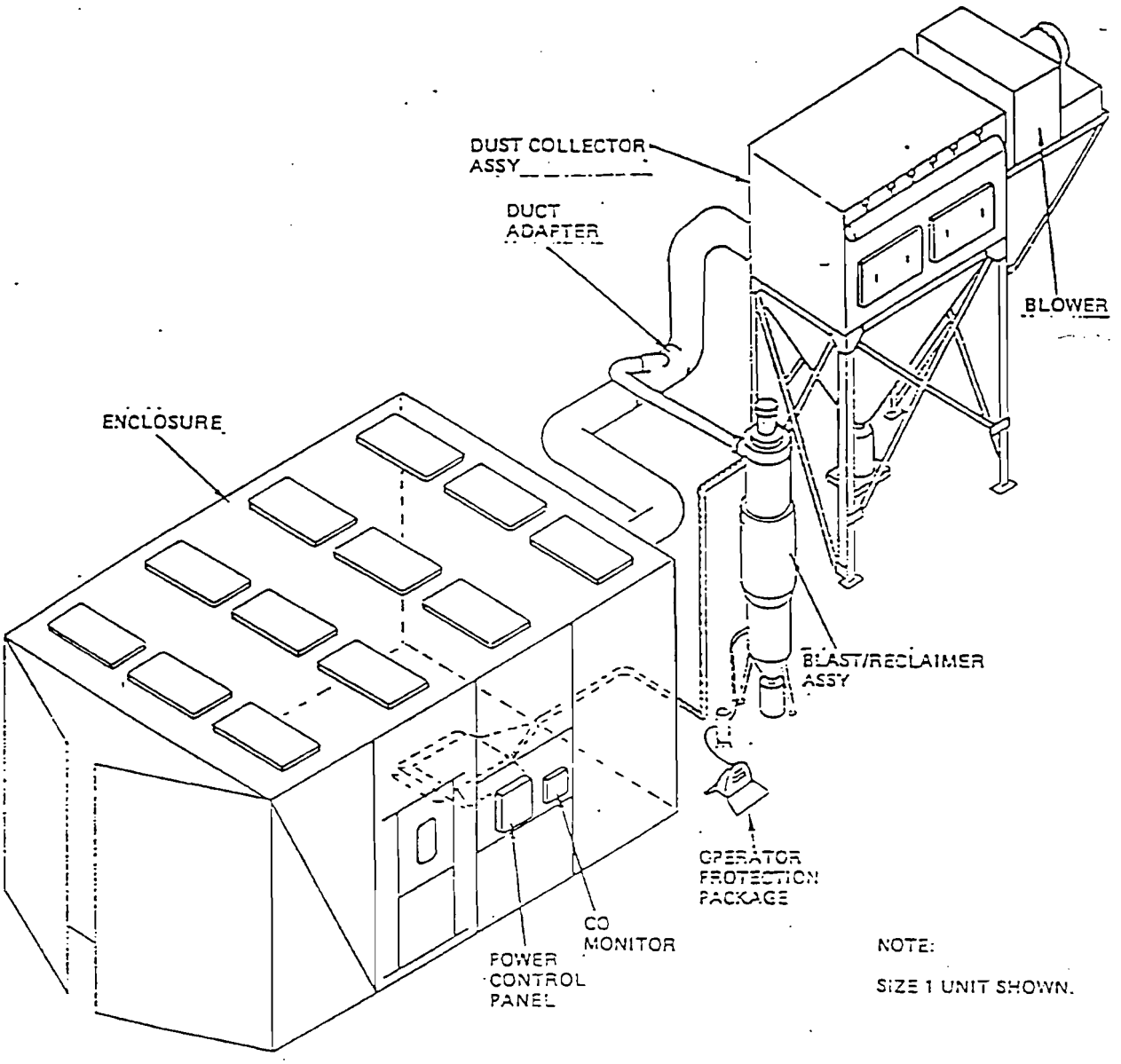
Exhaust flow rate = 7,000 CFM
Initial plastic media charge = 1,000 Lbs
Plastic media carryover or breakdown, per vendor assume @ 5% = 50 Lbs
Debris and dust carryover, assume @ 1% = 10 Lbs
At 99.9% efficiency, dust emission rate = 0.01 Lb/min = 0.01 gr/SCF
Assuming 3-4 hr. per shift operation, 5 days/wk, 52 wks/yr,
Total emissions = 0.01X60X1,040/2,000 = 0.31 Ton/yr

3. Air Cleaning Devices: Particulate emissions will be controlled using high efficiency 24 cartridge dust collector assembly.

4. Emission Points: Emission will be from discharge side of the ID fan. Discharge volume will be 7,000 CFM.

5. Sample Points: No sampling points are provided

6. Operating Schedule: This facility will normally be operated about 3-4 hours an eight-hour shift, 5 days/wk, 52 wks/yr. Depending upon work load two shift operation may be necessary.



4.2.4-708

Figure 1-1. Grit Blast Unit

ATCH-1

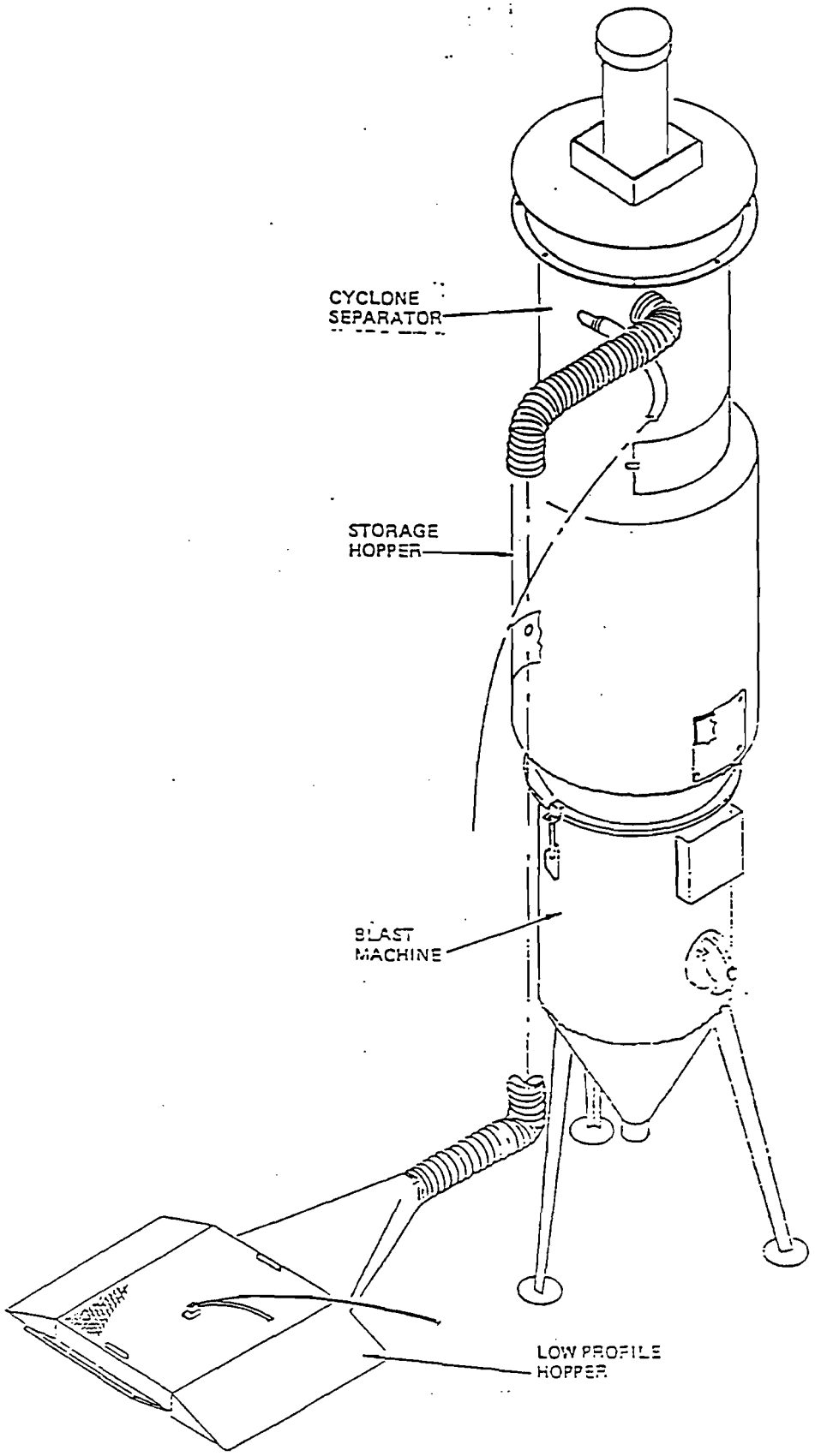


Figure 1-2. Blast/Reclaimer Assembly

4.2.4-709

ATCH-2

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS OGDEN AIR LOGISTICS CENTER (AFLC)
HILL AIR FORCE BASE, UTAH 84056-5990

24 MAR 1992

RECEIVED
MAR 25 1992
Air Quality

Mr F. Burnell Cordner, Executive Secretary
Department of Environmental Quality
Division of Air Quality
1950 West North Temple
Salt Lake City, UT 84114-4820

Re: Notice of Intent to Construct Emergency Diesel Generator, Bldg 565

Dear Mr Cordner

In compliance with Section 3.1 of the State Air Conservation Regulations, we submit the attached Notice of Intent to Construct. This 225 KW diesel generator replaced an existing 80 KW generator approved under an Approval Order issued 18 Sep 80.

If this office can provide additional information, please feel free to contact Jay Gupta at 777-4618.

Sincerely

James R. VanOrman

JAMES R. VAN ORMAN
Director of Environmental Management

1 Atch
Notice of Intent to Construct

Emergency Diesel Generator Bldg 565

1. Project Description:
An existing 80 KW generator approved under an Approval Order dated 18 Sept. 1980 is replaced with a Caterpillar Serial No. 2AJ00536, 225 KW emergency diesel generator using an existing 1,000 gallon above ground diesel tank. This generator serves as a back-up emergency power to Weber and Davis water pumps.

2. Pollutant Emissions:
The source of air pollution from this project involve exhaust emissions from diesel engine. Evaporative emissions from diesel tank are negligible. Since, this generator serves only as a back-up power unit, this will be in operation only during power outage and for periodic maintenance start-ups. For units under 250 KW, we run them only for an hour per month to ensure their availability in the event of power failure. Based on this, we estimate approximately less than 30 hours and a maximum of 60 hours run time per year.
Emissions are estimated using the EPA publication, AP-42, Compilation of Air Pollutant Emission Factors.
Total KW = 225
Existing KW = 80
Incremental KW = 145
Emissions (gms/yr) = Emission Factor (gm/KW-hr) X 30 hrs/yr X 145 KW

Pollutant	E.F.(gm/KW-hr)	Lbs/yr	Ton/yr	Max. Ton/yr
CO	4.06	38.9	0.02	0.04
HC	1.5	14.4	neg	neg
NOX	18.8	180.1	0.09	0.18
Aldehydes	0.28	2.7	neg	neg
SOX	1.25	12.0	neg	neg
Part	1.34	12.8	neg	neg

The emissions from this source are negligible.

3. Air Cleaning Devices: No controls are proposed because this power unit will be operational only during emergency and power outage.

4. Emission Point: Exhaust is approximately 7 feet above the surrounding ground elevation.

5. Sample Points: No sampling points are provided.

6. Operating Schedule: This unit will be run only during power outage and scheduled maintenance start-ups.