Entered 4/30/91 - OK

VARIANCE REQUEST

Iowa Department of Natural Resources

1. Date	: 4-8-91	13. Decision:	Approved
2. Review Engineer	: Terry Kirschenman	Date:	4/9/91
3. Date Received	: 2-15-91		
4. Facility Name	: Nevada	14. Appeal:	
5. County Number	: 85	Date:	
6. Program Area	: cp : wastewater construction-365		
7. Facility Type	: 605		
8. Subject Area	: Electrical Hazardous Area Classification		
9. Rule Reference	: 64.2(9)		
10. Design Std. Ref.	: 15.2.2 and 15.3.2.6		
11. Consulting Engr.	: Snyder and Associates		
12. Variance Rule	: 64.2(9)e(3)		

15. Description of Variance Request

The variance would allow the design to meet Class 1, Group D, Division 1 requirements rather than Class 1, Group C, Division 1 requirements for the design of the screen and grit buildings.

16. Consulting Engineer's Justification

The current Group C requirement is a typographical error.

16. Consulting Engineer's Justification (cont.)

17. Department's Justification

We concur with the consultant's justification. Class 1, Group D, Division 1 is the reference in paragraph 51.152 of 10 State Standards, 1978 edition. Group D is also the classification cited in IA 13.4.7 for wet wells of pumping stations. Wet wells are just as hazardous as grit and screenings areas.

B. Precedents Used

None Documented.

). Staff Reviewer	: Terry Kinscherman	Date:	4-8-91
). Supervisor	:	Date:	4/8/91
). Authorized by	:	Date:	4/9/91

STATE OF IOWA

RECORD COPY

File Name Nevada Sewage

Senders Initials TLK

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

April 8, 1991

The Honorable B. D. Hagen
Mayor of Nevada
1209 Sixth Street
Nevada, Iowa 50201

Subject: Electrical Hazardous Area Classification
Nevada, Iowa
C190845 04

Dear Mayor Hagen:

The Iowa Department of Natural Resources has reviewed the February 12, 1991 request for a variance on the electrical hazardous classification for the screenings and grit removal areas at the Nevada plant. The Department's standards (IA 15.2.2 and IA 15.3.2.6) require Class 1, Group C, Division 1 protection for screenings and grit removal areas whereas Nevada is requesting Class 1, Group D, Division 1 protection.

We have decided to approve your request for a variance. The Group C requirement appears to be in error. Using the Group D level of protection should be adequate.

Sincerely,

Darrell McAllister

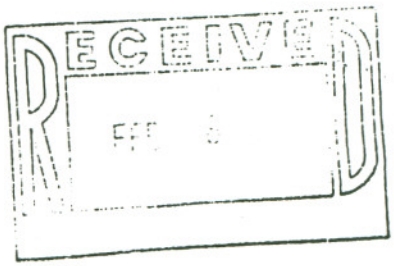
DARRELL MCALLISTER
BUREAU CHIEF
SURFACE AND GROUNDWATER PROTECTION BUREAU

cc: Field Office 5
Snyder and Associates

BROWN
Engineering Company

1051 Office Park Road
West Des Moines, IA 50265
Telephone (515) 225-6900
FAX (515) 225-3321

February 7, 1991



Mr. Chris Jens, P.E.
Snyder & Associates
301 North Ankeny Blvd.
Ankeny, Iowa 50021

Dear Mr. Jens:

Please be advised that the Iowa Waste Water Facilities Design Standards Chapter 15; Screening and Grit Removal; Electrical Hazardous Area Classifications, page 2, item 15.2.2 Electrical and page 6, item 15.3.2.6 Electrical, as classified Class 1, Group C, Division 1 Locations is in error per Mr. Bob Graf of the Iowa Department of Natural Resources. It should read: Class 1, Group D, Division 1.

We recommend that you write to the Department, to the attention of Terry Kirschenman, Project Manager, to request a variance to correct this for the Nevada Waste Treatment Facilities Addition.

The main differences are in the allowable equipment surface temperature. Group C allows 180° C, whereas Group D allows 280° C surface temperature. Brown Engineering feels that this should be corrected to prevent any future problems.

Sincerely,

BROWN ENGINEERING COMPANY

Donald P. McAdams

Donald P. McAdams

DPM/ju/90116-L1

cc: Terry L. Martin
Thomas V. Dilts

SNYDER & ASSOCIATES

301 North Ankeny Blvd.
Ankeny, Iowa 50021
515-964-2020
FAX 515-964-7938

CONSULTING ENGINEERS

Civil • Municipal
Water & Wastewater Treatment
Drainage • Streets
Surveying • Airports

SNYDER & ASSOCIATES, INC.

February 12, 1991

Terry Kirschenman, P.E.
Project Manager
Wastewater Permits Section
Iowa Department of Natural Resources
Wallace State Office Building
900 E. Grand
Des Moines, Iowa 50313

RE: NEVADA, IOWA
WASTEWATER TREATMENT PLANT IMPROVEMENTS
REQUEST FOR DESIGN VARIANCE - ELECTRICAL HAZARDOUS AREA CLASSIFICATION
PROJECT NO. 89-206-G

Enclosed is a letter from our electrical consultant, Brown Engineering Company in reference to the Electrical Hazardous Area Classification for the Screening and Grit Removal Areas.

We request approval of a design variance to correct the Iowa DNR Design Standards and classify the Screening and Grit Removal Areas as Class 1, Group D, Division 1 locations.

Sincerely,

SNYDER & ASSOCIATES, INC.

Allen Munsterman

Allen R. Munsterman, P.E.
ARM/ckc
N17.24

Encl.

cc: Harold Mitchell
Mike Monahan
Brown Engineering Company

STATE OF IOWA
DEPARTMENT OF WATER, AIR AND WASTE MANAGEMENT
HENRY A. WALLACE BUILDING
DES MOINES, IOWA 50319

PRELIMINARY ENGINEERING REPORT ACCEPTANCE RECORD COPY

File Name Nevada - Sewage

Senders Initials FME

Project No: S85-217

ty of Nevada
ty Hall
vada, Iowa 50201

File: Nevada - Sewage

Re: Wastewater Treatment Facilities Improvements

have completed our review of the preliminary engineering report for the above referenced project. We are general agreement with the concepts, conclusions, and recommendations contained in this report.

wever, we would like to offer the following comments:

In accordance with your approved Plan of Action, additional studies shall be performed on alternate methods of eliminating direct bypassing of peak flows in excess of 3.75 MGD. A plan and tentative schedule for proposed improvements shall be submitted to this Department by April 1, 1986.

The request for variances from our design standards to allow continued use of the existing clarifiers even though these facilities do not meet our design requirements for depth and duplicate unit reliability will be granted. These variances will be granted when a construction permit is issued for this project.

accordance with the rules of this Department, plans and specifications for the proposed facility must be bmitted to this Department for review and issuance of a construction permit prior to construction of such cilities. The plans and specifications should be in concurrence with the preliminary engineering report as cepted. Any deviation from the facility design as outlined in the engineering report must be identified and companied by an explanation detailing the reasons for modifications.

ntact Fred M. Evans at 515/281-8969 with any questions or comments.

By: Lavoy Hodge
PROGRAM OPERATIONS DIVISION

Date: October 29, 1985

: Brice, Petrides, Donahue, Des Moines, IA
Region 5

IE:pla/WWPW298M05.01

gineering Report Distribution

Engineer; 1 Region; 1 File

STATE OF IOWA
DEPARTMENT OF WATER, AIR AND WASTE MANAGEMENT
HENRY A. WALLACE BUILDING
DES MOINES, IOWA 50319

CONSTRUCTION PERMIT

City of Nevada
City Hall
Nevada, Iowa 50201

Permit No.: 86-79-S

File: Nevada - Sewage

Re: Wastewater Treatment Facilities

WAWM Project No.: S85-217

In accordance with the provisions of Sections 455B.173.9 and 455B.174.4 Code of Iowa, and Rule 900--64.2(455B) or Rule 900--65.5(455B), or Rule 900--41.12(455B) of the Iowa Administrative Code, the Executive Director of the Department of Water, Air and Waste Management does hereby issue a permit for the construction of:

Additional raw wastewater pumping facilities, flow meter vault, new grit removal facilities, one new primary clarifier 50 feet in diameter, one new final clarifier 60 feet in diameter, rehabilitation of existing primary and final clarifiers, modifications to existing trickling filter to include a new rotary distributor and cover, new recycle pump station, new control building, and associated piping and appurtenances.

The wastewater treatment facility approved under this construction permit is designed to treat an organic loading of 1409 pounds of BOD_5 per day while handling an average wet weather flow of 2.1 MGD and a maximum plant flow of 3.75 MGD. The facility has been designed to meet the effluent limitations of:

Parameter	Daily Ave.	Maximum
Ammonia Nitrogen (NOv 1 - March 31)	15 mg/l	22.5 mg/l
*Biochemical Oxygen Demand (5-day)	30 mg/l	45 mg/l
*Suspended Solids	30 mg/l	45 mg/l
pH	Minimum 6.0	Maximum 9.0

* An average monthly removal of 85% is also required.

In accordance with your approved Plan of Action, additional studies shall be performed on alternate methods of eliminating direct bypassing of peak flows in excess of 3.75 MGD. Such studies shall be coordinated with our regional office staff.

The request for variances from our design standards to allow continued use of the existing clarifiers even though these facilities do not meet our design requirements for depth and duplicate unit reliability is hereby granted.

The construction of the project shall be initiated within one year of issuance of this permit or this permit is no longer valid. Within thirty days after completion of construction, the permit holder shall submit a certification by a registered professional engineer that the project was completed in accordance with the approved project documents.

Pursuant to Section 455B.174.4, Code of Iowa, you have the right to appeal any condition of this permit by filing with the Executive Director of the Department of Water, Air and Waste Management a notice of appeal and request for administrative hearing within thirty days of receipt of this permit.

Contact Fred M. Evans at 515/281-8969 with any questions or comments.

For the Department of Water, Air and Waste Management:

Stephen W. Ballou, Executive Director

By: Larry Hoege
PROGRAM OPERATIONS DIVISION

Date: May 7, 1986

cc: Brice, Petrides/Donahue, Des Moines, IA
WAWM Region 5

LH:FME:WWPW127M01.01

Plan Distribution

1 Engineer; 1 Region; 1 WAWM File