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File CUP-1995-176
Date 10/6/99

Present	Scanned	
		A few items are denoted with an asterisk (*), which means they are to be scanned for permanent record on the ISYS retrieval system. In some instances, not all entries designated to be scanned, are present in the file. There are also documents specific to certain files, not found on the standard list. For this reason, a checklist has been included. **Remaining items, (not selected for scanning), will be marked present on the checklist. This index can serve as a quick guide for the contents of each file.** **Files denoted with (**) are to be located using the ISYS Query System. Planning Clearance will need to be typed in full, as well as other entries such as Ordinances, Resolutions, Board of Appeals, and etc.**
X	X	***Summary Sheet – Table of Contents**
X	X	Application form
X	X	Receipts for fees paid for anything
X	X	***Submittal checklist**
X	X	***General project report**
		Reduced copy of final plans or drawings
		Reduction of assessor's map
		Evidence of title, deeds
X	X	***Mailing list**
		Public notice cards
		Record of certified mail
X	X	Legal description
		Appraisal of raw land
		Reduction of any maps – final copy
		***Final reports for drainage and soils (geotechnical reports)**
		Other bound or nonbound reports
		Traffic studies
		Individual review comments from agencies
X	X	***Consolidated review comments list**
X	X	***Petitioner's response to comments**
X	X	***Staff Reports**
		***Planning Commission staff report and exhibits**
		***City Council staff report and exhibits**
		***Summary sheet of final conditions**
		***Letters and correspondence dated after the date of final approval (pertaining to change in conditions or expiration date)**

DOCUMENTS SPECIFIC TO THIS DEVELOPMENT FILE:

X	X	City Council Minutes - ** - 6/5/96	X		E-mail from John Shaver to Kristen Ashbeck – 2/16/96
X		Planning Commission Hearing - ** - 3/12/96	X		Memo to Kristen Ashbeck from Hank Masterson -2/6/96
X	X	Proposed Site Plan	X		Letter from Keith Holder to Kristen Ashbeck – 2/5/96
X	X	Visual Impact Rendering	X		Memo from Kris Ashbeck to Shawn Cooper – 1/12/96
X		E-mail from Kristen Ashbeck to Dan Wilson – 6/4/95	X		Letter from Kristen Ashbeck to Darrel Vanhooser re: Fire Dept. Notes - 1/8/96
X	X	E-mail from Hank Masterson to Kristen Ashbeck – 5/30/96	X		Memo to Jody Kliska to Kristen Ashbeck – 12/19/95
X	X	E-mail from Dan Wilson to Kristen Ashbeck – 5/30/96	X		Memo from Hank Masterson to Kristen Ashbeck – 2/9/96
X		E-mail from John Shaver to Dan Wilson – 5/29/96	X		Letter to Editor, The Daily Sentinel Keith Holder – 2/3/96
X		E-mail from Kristen Ashbeck to John Shaver – 5/20/96	X		Letter from Kristen Ashbeck to Darrel Vanhooser – 1/8/96
X		E-mail from John Shaver to Kristen Ashbeck – 5/20/96	X		Memo to Kristen Ashbeck from Hank Masterson – 1/8/96
X		E-mail from John Shaver to Kristen Ashbeck – 5/16/96	X		Memo to Kristen Ashbeck from Dave Stassen – 1/2/96
X		Letter from Kristen Ashbeck to Darrel Vanhooser – 4/9/96	X		Grand Junction Products Loading Terminal Site Plan & Proposed Modifications Base Case
X		Memo from Hank Masterson to Kristen Ashbeck – 2/27/96	X		E-mail from Jody Kliska to Kristen Ashbeck – 12/19/95
X	X	Review Comments from Rick Beaty to Kristen Ashbeck – 3/8/96	X		E-mail from Dave Stassen to Kristen Ashbeck – 12/19/95
X		Handwritten Notes	X		Memo from Jim Stemrich to Drew Reekie – 12/11/95
X		Letter from Kristen Ashbeck to Mark Johnke – 2/21/96	X		Letter from Kristen Ashbeck to Darrel Vanhooser – 10/20/95
X		Memo to Commun. Dev. Dept. from Perry Buda – 1/11/96	X	X	Letter from Hank Masterson to Kristen Ashbeck – 4/23/96
X		Memo to Marcia Rabideaux from Jody Kliska – 1/18/96	X		Memo to Krisen Ashbeck from Hank Masterson – 12/18/95
X		Memo to Kristen Ashbeck from Hank Masterson – 1/16/96	X		Memo to Rick Beaty & Jim Bright from Drew Reekie – 7/4/95

X	X	Posting of Public Notice Signs	**COMPLAINTS FROM CONCERNED CITIZENS IN THIS COLUMN**		
X		Letter from Anne Landman to Kristen Ashbeck – 4/26/96	X		Letter from Judd Perry to Mayor – 4/5/96
X		Letter from Darrel Vanhooser to Anne Landman – 4/23/96	X		Letter from Judd Perry to Planning Commission – 3/11/96
X	X	Possible Specifications for Storage Tanks	X		Letter from Concerned Citizens Res. Assoc. to Kristen Ashbeck - 4/25/96
X		Memo to Larry Timm from Barbara Creasman – 3/12/96	X		Letter from Ed Del Duca to Planning Commission – 3/11/96
X	X	Memo to Planning Commission from Judd Perry - 3/11/96	X		Letter from James Hamilton, Home Loan to Kristen Ashbeck- 2/27/96
X	X	Letter from Allen Munro – 3/11/96	X		Letter from Davis Holder to Kristen Ashbeck – 2/27/96
X	X	Letter form Bob Denning to Kristen Ashbeck – 2/27/96	X		Signed petition by residents of southside Grand Jct. including Struthers Ave., Kimball Ave., Noland Ave. and surrounding areas
X	X	Letter from G.A. Tucker to Kristen Ashbeck – 2/19/96	X		Presentation by Bill Hiatt, CCRA – 3/7/96
X	X	Memo to Kristen Ashbeck from Concerned Citizens Res. Assoc. – date?	X		Letter from John Aldridge to Kristen Ashbeck – 5/14/96
X	X	Letter from Chris Brownlee, Mesa Co. Local Emergency Planning Committee to Larry Timms – 1/3/96	X		Fax from Kristen Ashbeck to Bill Verbeten – 2/5/96
X	X	Separation Chart from Tim Sarmo	X		Letter from Anne Landman to Linda Afman – 5/9/96
X		Siting of HUD-Assisted Projects Near Hazardous Facilities	X		Letter from Thomas Volkmann to Kristen Ashbeck re: appeal - 3/13/96
X		Technical Report – Analysis of the Conoco Products Loading Terminal Site Plan and Proposed Modifications	X		Letter from Ron DeVille to Anne Landman – 3/7/96
X		Letter from Jennie Baker to Kristen Ashbeck – 6/27/96	X		Letter from Michelle Ashton to Kristen Ashbeck – 2/29/96
X		Letter from Thomas Volkmann, attorney to Kristen Ashbeck- 5/31/96	X		Letter from Michelle Ashton to Kristen Ashbeck re: alternate staging layouts– 2/29/96
X		G. J. Products Loading Terminal – Alt. Truck Rack Locations	X		Letter from Mark Johnke, Rooney Eng. To Kristen Ashbeck- 2/23/96 & 2/15/96
X		Material Safety Data Sheets	X	X	Rooney Eng. Inc. – Conditional Use Permit Application
X		Letter from Conoco Inc. to Kristen Ashbeck re: Remaining Issues on Conoco's Conditional Use Permit Application – 4/4/96	X		Letter from Wayne Hunter to Kristen Ashbeck re: Denning Lumber Access from Second Ave. – 1/29/96
X		Letter from Michael Miller to Michelle Ashton re: Stormwater Management Plan Applicability – 1/15/96	X		Letter to Perry Buda to Jay Christopher – 1/22/96
X		Letter from Mark Johnke to Kristen Ashbeck – 2/20/96	X		Letter form Darrel Vanhooser to Kristen Ashbeck – 11/30/95
X	X	Letter from Mark Johnke to Kristen Ashbeck – 2/19/96	X		Letter from Darrrel Vanhooser to Kristen Ashbeck – 11/22/95
X	X	Minutes of 1/25/96 Meeting at Fire Department	X	X	Letter from Michelle Ashton, Conoco to Kristen Ashbeck – 11/22/95
X		Warranty Deed	X		Grand Junction Products Loading Terminal Proposed Landscaping
X		Map – Grand Junction Terminal Expansion Foam & Cooling Water Systems for Tanks, Dike & Truck Rack	X		Grand Junction Terminal Plot Plan with Additional Land
X		Grand Junction Products Loading Terminal Expansion Railcar Containment Area Capacity Calculations	X		Grand Junction Rail Terminal Piping Isometric

SUBMITTAL CHECKLIST

VACATION

Location: Alleways SW of RR & 9th St. Project Name: _____

VR-95-176

DESCRIPTION

Due 1st working day of month for PC hearing 1st Tuesday of following

ITEMS	SSID REFERENCE	● City Community Development	● City Dev. Eng.	● City Utility Eng.	● City Property Agent	● City Fire Department	● City Police Department	● City Attorney	● City Sanitation	● City G.J.P.C. (8 sets)	○ City Downtown Dev. Auth.	● City Council	○ County Planning	○ Irrigation District	○ Drainage District	● Water District	○ Sewer District	● U.S. West	● Public Service	● GVRP	● TCI Cable		TOTAL REQ'D.
● Application Fee $450	VII-1	1																					
● Submittal Checklist*	VII-3	1																					
● Review Agency Cover Sheet*	VII-3	1	1	1	1	1	1	1	1		1		1	1	1	1	1	1	1	1	—		
● Application Form*	VII-1	1	1	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	—		
8½x11 ● ~~11"x17"~~ Reduction of Assessor's Map	VII-1	1	1	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	—		
● Names and Addresses	VII-~~8~~2	1																					
● Legal Description of Alleyways	VII-2	1			1										1								
● General Project Report	X-7	1	1	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	—		
● Vicinity Sketch / Site Plan	IX-~~33~~	1	2	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	—		
● Full size Assessor's Map		1																					

NOTES:
1) An asterisk in the item description column indicates that a form is supplied by the City.
2) Required submittal items and distribution are indicated by filled in circles, some of which may be filled in during the pre-application conference. Additional items or copies may be subsequently requested in the review process.
3) Each submitted item must be labeled, named, or otherwise identified as described above in the description column.

SUBMITTAL CHECKLIST

CONDITIONAL USE PERMIT

Location:______________________ Project Name:______________________

ITEMS		DISTRIBUTION										
Date Received ________ Receipt # 2980 File # VR-95-174 DESCRIPTION	SSID REFERENCE	● City Community Development	● City Dev. Eng.	● City Utility Eng.	O City Property Agent	● City Attorney	● City G.J.P.C. (8 sets)	O City Downtown Dev. Auth.	O City Parks/Recreation	O County Planning	O Walker Field	TOTAL REQ'D.
● Application Fee	VII-1	1										
● Submittal Checklist *	VII-3	1										
● Review Agency Cover Sheet*	VII-3	1	1	1	1	1		1	1	1	1	
● Application Form*	VII-1	1	1	1	1	1	8	1	1	1	1	
● Reduction of Assessor's Map	VII-1	1	1	1	1	1	8	1	1	1	1	
● Evidence of Title	VII-2	1				1						
O Appraisal of Raw Land	VII-1	1			1				1			
● Names and Addresses*	VII-2	1										
● Legal Description*	VII-2	1			1							
O Deed	VII-1	1			1	1						
O Easement	VII-2	1	1	1	1	1						
O Avigation Easement	VII-1	1			1	1					1	
O ROW	VII-3	1	1	1	1	1						
● General Project Report	X-7	1	1	1	1	1	8	1	1	1	1	
● Location Map	IX-21	1										
● ~~Vicinity Sketch~~ Site Plan	IX-33	1	1	1	1	1	8	1	1	1	1	

NOTES: * An asterisk in the item description column indicates that a form is supplied by the City.

DEVELOPMENT APPLICATION

Community Development Department
250 North 5th Street, Grand Junction, CO 81501
(303) 244-1430

Receipt _____
Date _____
Rec'd By _____
File No. VR-95-176

We, the undersigned, being the owners of property situated in Mesa County, State of Colorado, as described herein do hereby petition this:

PETITION	PHASE	SIZE	LOCATION	ZONE	LAND USE
☐ Subdivision Plat/Plan	☐ Minor ☐ Major ☐ Resub				
☐ Rezone				From: To:	
☐ Planned Development	☐ ODP ☐ Prelim ☐ Final				
☒ Conditional Use			631 S. 9th	I-2	Comm./Ind.
☐ Zone of Annex					
☐ Variance					
☐ Special Use					
☒ Vacation			Portion of 2nd Ave. & alleys	I-2	☒ Right-of Way ☐ Easement
☐ Revocable Permit					

☒ PROPERTY OWNER	☒ DEVELOPER	☒ REPRESENTATIVE
Conoco Inc.	same	Darrel Vanhooser / Conoco Inc.
Name	Name	Name
631 S. 9th St.		6855 S. Havana St, Suite 180
Address	Address	Address
Grand Junction, Co 81501		Englewood Co 80112
City/State/Zip	City/State/Zip	City/State/Zip
970-245-0880		303-649-4165
Business Phone No.	Business Phone No.	Business Phone No.

NOTE: Legal property owner is owner of record on date of submittal.

We hereby acknowledge that we have familiarized ourselves with the rules and regulations with respect to the preparation of this submittal, that the foregoing information is true and complete to the best of our knowledge, and that we assume the responsibility to monitor the status of the application and the review comments. We recognize that we or our representative(s) must be present at all required hearings. In the event that the petitioner is not represented, the item will be dropped from the agenda, and an additional fee charged to cover rescheduling expenses before it can again be placed on the agenda.

Darrel C. Vanhooser — 9-28-95
Signature of Person Completing Application — Date

Thomas B Scott — 9-28-95
Signature of Property Owner(s) - attach additional sheets if necessary — Date

Conoco Inc.

GRAND JUNCTION TERMINAL EXPANSION

General Project Report

September 28, 1995

1.0 INTRODUCTION

Conoco Inc. owns and operates a petroleum products loading terminal located at 631 S. Ninth Street, Grand Junction, Colorado. The terminal handles five (5) separate products, including three (3) grades of gasoline, No. 2 diesel fuel, and jet fuel. Incoming products are delivered to the terminal via railcar and are stored in on-site tankage for subsequent loading onto trucks and delivery to retail outlets.

2.0 DESCRIPTION OF PROPOSED TERMINAL MODIFICATIONS

2.1 Overview

As the result of increasing demand for petroleum products in the Grand Junction area, Conoco's loading terminal is handling greater volumes of gasoline and diesel fuel. At the higher demand levels experienced, Conoco's facility lacks adequate storage capacity.

To improve the reliability of product supply in the Grand Junction area, Conoco proposes to construct two (2) new storage tanks. One (1) tank will be placed in unleaded gasoline service, the second tank will be placed in No. 2 diesel fuel service.

2.2 Site Layout

Conoco's existing terminal facilities are located on Lots 1 through 7 and 17 through 24 in Block 10 of the Milldale Subdivision. The property is positioned west of Ninth Street and north of Second Avenue. Also west of Ninth Street but to the south of Second Avenue, Conoco owns an additional parcel in Block 12, comprised of Lots 5 through 13.

Conoco proposes to construct the new tanks on Lots 5 through 13 in the Block 12 parcel. The overall dimensions of the parcel are approximately 223' by 125'. No terminal facilities are presently located on the property.

2.3 Description of Proposed Tankage and Related Facilities

Each of the two (2) proposed tanks will have a nominal capacity of 30,000 barrels and approximate dimensions of 67' in diameter by 48' high. Accepted industry and governmental codes, standards and practices will be followed during tank design and construction.

By way of overall design parameters, the tanks will be constructed from steel with the shell thickness ranging from approximately 0.45" on the bottom course to 0.30" for the top ring. Both tanks will be outfitted with a fixed-style cone roof (i.e. welded to the shell), plus an internal floating roof. The internal floating roof will rest on the surface of the stored product to minimize the emission of vapors.

To prevent corrosion, the interior tank floor and 18" up the shell will be coated with thin film epoxy. The exterior tank shells and roofs will be painted. color?

Each tank will be supported by a concrete ringwall foundation and appropriate compacted backfill material. The foundation design will be based on site soil sampling, testing and analysis.

Following construction, the new tanks will be subjected to a full hydrostatic test prior to being placed in service.

A concrete retaining wall no more than 12' in height and 12" to 18" thick will be constructed around the tanks to provide containment in the event of a spill. Stairwells and ladders necessary for normal or emergency ingress and egress over the wall will also be provided.

The area surrounding the tanks will be graded to provide not less than a one (1) percent downward slope away from the tanks towards the retaining wall. To remove storm water trapped inside the dikes, drainage pipes and valves will be provided through the retaining wall.

Secondary containment in the form of a geosynthetic clay or high density polypropylene liner will be installed under the tanks to prevent subsurface soil contamination.

Above-ground and buried piping will be installed from the railcar off-loading positions to fill the new tanks with product. The piping will be constructed above-grade wherever possible; however, to cross Second Avenue, buried piping, installed in accordance with all applicable codes and regulations, will be necessary.

To route product from the new tanks to the truck loading rack, pumps and piping

will be installed. As with the tank fill piping, the rack supply lines will be constructed above-grade except for the crossing of Second Avenue.

2.4 Tank Setbacks, Spacing and Containment

To meet the spacing and setback requirements of the National Fire Protection Association, internal floating roofs will be installed in both the new unleaded gasoline and No. 2 diesel fuel tanks. Consequently, for the proposed 67' diameter tanks, the tanks will be set back no less than 33.5' from property lines on the south and west. On the east and north, where public ways border the tank site, the tanks will be positioned a minimum of 11.17' from the edge of the public way. Spacing between the tanks will be at least 22.33'.

A common perimeter retaining wall will be constructed of height sufficient to contain the entire contents of one (1) of the tanks, after deducting the volume occupied by the other tank below the height of the wall. In addition, an intermediate retaining wall will be constructed between the 2 tanks to confine minor spills (less than 10% of the tank volume). Between the interior of all retaining walls and the tanks, a minimum of 5' of clearance will be provided. The perimeter wall will also be set back no less than 10' from the adjoining property lines to the south and west.

3.0 DESCRIPTION OF ALLEYWAYS TO VACATED

The alleyways to be vacated in Block 10 of the Milldale Subdivision include the east-west alleyway between Lots 1 though 7 and Lots 7 though 24, the north-south alleyway east of Lot 1, and the north-south alleyway west of Lot 25. All three alleyways are currently not being used for vehicle traffic. The property surrounding the first two alleyways is owned by Conoco, Inc. The property surrounding the third alleyway is owned by Denney Lumber.

The alleyway to be vacated in Block 12 of the Milldale Subdivision is the north-south alleyway west of Lot 5. The property east of the alleyway is owned by Conoco, Inc., and the property west of the alleyway is owned by Denney Lumber.

Warren F. Reams
899 24½ Road
Grand Junction, CO 81505-9629

Coors Energy Co.
c/o Logan & Firmine, Inc.
P.O. Box 4274
Englewood, CO 80155-4274

Dean White, Tom Lewis &
Richard Pierle
715 S. 7th Street
Grand Junction, CO 81501-7736

Munro Properties, Inc.
808 S. 9th Street
Grand Junction, CO 81501-3738

Grand Junction Newspaper, Inc.
c/o The Daily Sentinel
P.O. Box 668
Grand Junction, CO 81502-0668

Kaman Bearing & Supply
Corporation Intermountain
P.O. Box 30807
Salt Lake City, UT 84130

Colorado State Department
of Highways
4201 E. Arkansas Avenue
Denver, CO 80222-3406

Colorado State Department
of Highways
606 S. 9th Street
Grand Junction, CO 81501

American Linen Supply
P.O. Box 2317
Salt Lake City, UT 84110-2317

Western Colorado Electrical
Joint Apprenticeship Comm.
136 N. 7th Street
Grand Junction, CO 81501-3524

Western Colorado Electrical
Joint Apprenticeship &
Training Center
914 3rd Avenue
Grand Junction, CO 81501-3714

Joseph A. Loffreda
P.O. Box 1806
Grand Junction, CO 81502-1806

Jack D. Berry
417 N. 7th Street
Grand Junction, CO 81501-3302

David N. & Michelle B. Berry
813 3rd Avenue
Grand Junction, CO 81501-3711

Edwin L. Henderson &
Mildred-Caroline J. Fawver
292 Cherry Lane
Grand Junction, CO 81503-2016

Castings, Inc.
P.O. Box 669
Grand Junction, CO 81502-0669

Western Colorado Precision
Marksmanship Society
1074 24 Road
Grand Junction, CO 81505

Michael J. & Maureen A. Johnson
2421 I Road
Grand Junction, CO 81505-9612

BMC West Corporation
P.O. Box 8008
Boise, ID 83707-2008

Darrel Vanhooser/CONOCO Inc.
6855 S. Havana St. Suite 180
Englewood, CO 80112

Denning Lumber
ATTN: Wayne Hunter
PO Box 909
Grand Junction, CO 81502

Joe Chavez
912 Kimball Avenue
Grand JUnction, CO 81501

Moffatt, Thomas, Barrett, Rock
& Fields
ATTN: Paul Street
PO Box 829
Boise, Idaho 83701

Mr. Perry Buda
Mesa Co. Health Dept
515 Patterson Road
Grand Junction, CO 81506

Conoco, Inc.
631 S 9th Street
Grand Junction, CO 81501

Concerned Citizens
Resource Association
140 Elm Ave.
Grand Junction, CO 81501

City of Grand Junction
Community Development Dept.
250 N 5th Street
Grand Junction, CO 81501

Western Coloardo Electrical
Joint Apprenticeship &
Training Center
914 3rd Avenue
Grand Junction, CO 81501

Judd L. Perry
2954 Beechwood St
Grand Jct, CO 81506

Terry Farina
Hoskin, Farina, Aldrich & Kampf
PO Box 40
Grand Junction, Colorado 81502

John Aldrich
Aldrich Tranportation Consultants
1082 Chimney Rock Rd.
Highlands Ranch, CO 80126

Jane Vander tuin
2422 Hidden Valley Dr.
Grand Junction, CO 81503

Bill Hiatt
140 Elm Ave.
Grand Junction,CO 81501

Rick Hittle
2615 Hawthorn
Grand Junction, CO 81506

Jamie Hamilton
145 Pikes Peak Dr.
Grand Junction, CO 81503

Perry Buda
3048 F 3/4 Rd.
Grand Junction, CO 81504

Bill Waldron
Rocky Mtn. Group of Companies
2899 O Rd.
Hotchkiss, CO 81419

Ann Landman
115 16 1/2 Rd.
Glade Park, CO 81523

Chris Brownlee
257 Belford Ave.
Grand Junction, CO 81501

Ann Barrett
641 N. 16th St.
Grand Junction, CO 81501

Craig Roberts
1320 Chipeta Ave.
Grand Junction, CO 81501

Ted Ciavonne
Ciavonne & Associates
844 Grand Ave.
Grand Junction, CO 81501

Judd Perry
2945 Beechwood
Grand Junction, CO 81506

Fred Pierce
284 Mountain View
Grand Junction, CO 81504

Joe Gomez
857 Kimball Ave.
Grand Junction, CO 81501

Ram Dan Kaur Kalsa
494 N. Sherwood Dr.
Grand Junction, CO 81501

Technical Report

Analysis of the Conoco Products Loading Terminal Site Plan and Proposed Modifications

Prepared For:

Concerned Citizens Resource Association
c/o Mr. William R. Hiatt
496 ½ E. Valley Street
Grand Junction, Colorado 81504

Prepared By:

Aldridge Transportation Consultants
1082 Chimney Rock Road
Highlands Ranch, Colorado 80126
303-298-7117
303-683-8480 (after 3-18-96)

MARCH 1996

Rec'd GJ CUD 3/12/96
+ drawings + photos

TABLE OF CONTENTS

I SUMMARY & FINDINGS

Conoco, Inc. has applied to the City of Grand Junction for a conditional use permit to construct two large gasoline storage tanks (25,000 and 30,000 Barrels) at their existing products loading facility on 9th Street and 2nd Avenue. The current storage capacity at the facility is approximately 20,000 Barrels (Bbls.). The storage capacity will increase with the additional storage tanks to approximately 75,000 Bbls., which represents a 375 percent increase. The application has caused concern from neighboring property owners, city officials, and citizens about the inherent danger of large gasoline storage tanks, especially within the city limits, and the increased gasoline truck traffic that is projected to occur.

The proposed on-site circulation is a special concern as 2nd Avenue is a city owned street that currently provides access to Denning Lumber, a supplier of building material. The on-site circulation plan proposed by Conoco, Inc. requires that 2nd Avenue become a staging area for gasoline trucks waiting to be loaded. Furthermore, the staging area is located on the south side of the street and gasoline trucks are supposed to be parked in the opposite direction of normal traffic flow. This allows gasoline trucks, normally 70 feet in length, to make the turn into the loading area. Conoco has submitted two optional designs to correct the on-site circulation problems, but each option requires the new storage tanks to be located in the street right-of-way.

Specifically, the review conducted by Aldridge Transportation Consultants (ATC) of the proposed modifications to the Conoco Products Loading Terminal has determined that:

1) Approving an atypical and potentially dangerous traffic situation on city property could expose the City to possible lawsuits should an accident occur.

2) The on-site circulation plan proposed by Conoco, Inc. impedes full use of a public street access to Denning Lumber. The options presented by Conoco put the new storage tanks into the street right-of-way which is unacceptable unless the City wishes to vacate the street.

3) City streets, particularly at 9th Street and Pitkin are not designed to handle large gasoline tankers efficiently.

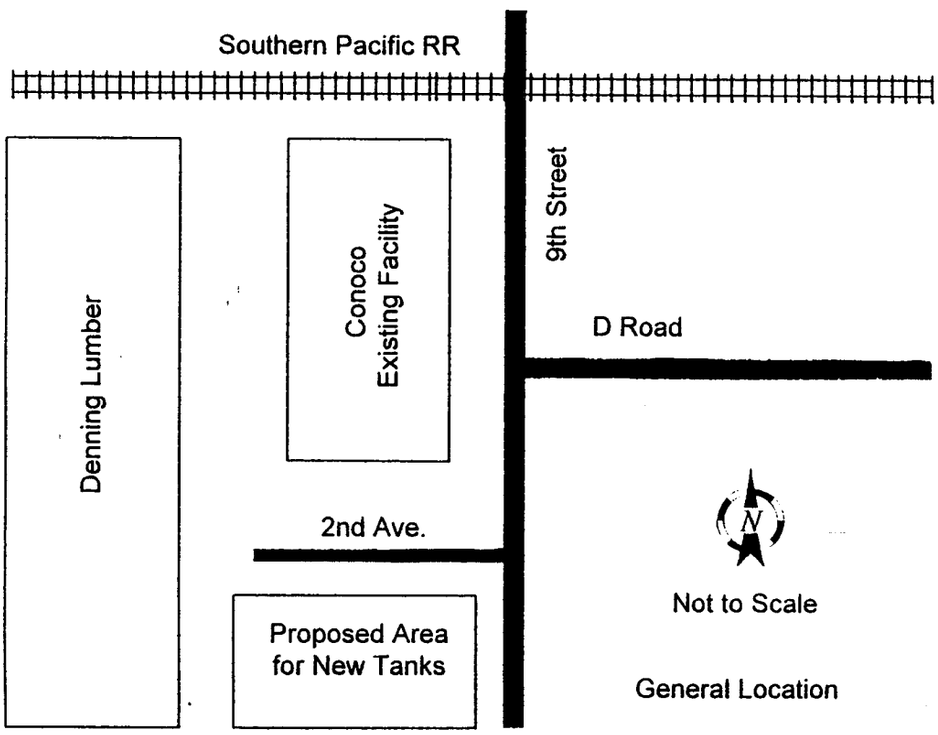
4) Alternative routing is precluded by many factors including the lack of river crossings from 9th Street to 32nd Road. Basically, no practical alternative is available to avoid the use of Ute and Pitkin Avenues via 9th Street.

5) The adjacent RR lines are very active and must be crossed constantly by the gasoline trucks. Even though gate and signal controls are in place, there is a clear and present danger at this location that should be minimized.

In the opinion of ATC, the traffic and transportation impacts listed above should be avoided by denying the conditional use permit application from Conoco.

II TECHNICAL ANALYSIS

ATC focused its attention on the traffic issues revolving around the proposed expansion of the Conoco Products Loading Facility. At this writing, Conoco had presented plans for the expansion that included a staging area for tanker trucks to wait until they could move into the loading area. The staging area is located directly on 2nd Avenue which is a city-owned street providing access to Conoco and Denning Lumber. Alleys on the south and west side of the Conoco site are also city owned. 2nd Ave. is primarily gravel with some deteriorated asphalt. There is no curb and gutter to delineate the street. The following graphic shows the general location of the facility and area where the proposed new storage tanks are to be located.

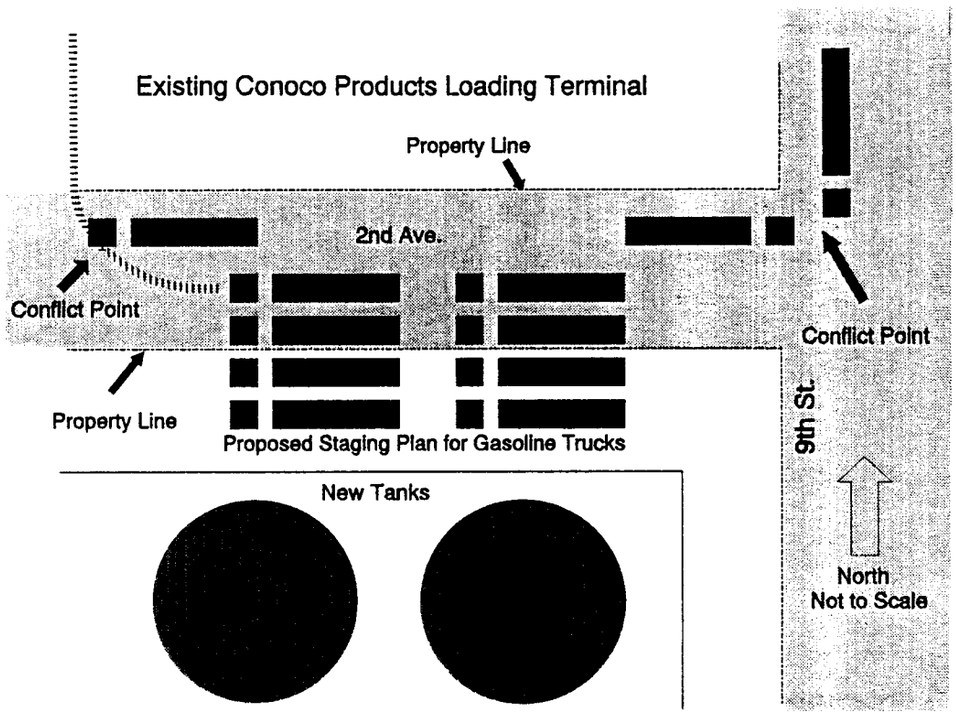


ATC's analysis examined two specific transportation elements. First is the on-site circulation proposed by Conoco. Since city owned streets are involved in the circulation, then how traffic is proposed to function on city streets must be carefully scrutinized. Second are the impacts to the external street system that will be used by an increased number of gasoline trucks.

On-Site

The preferred circulation plan submitted by Conoco shows gasoline trucks parked facing west in the eastbound lane of 2nd Ave. This is done so that the gasoline trucks, typically 70 feet in length, have sufficient room to turn into the property and the loading area. The turn from this location could cause a broadside type accident with a westbound vehicle going into Denning Lumber. Furthermore, it could cause an awkward situation entering and exiting 2nd Ave. to and from 9th Street. The bottom line, however, is liability regarding the City sanctioning an improper use of city streets. There may be an exposure for the City that is unacceptable. Options submitted by Conoco show the new storage tanks in City right-of-way, which is unacceptable unless the City wishes to vacate 2nd Avenue.

The following graphic shows the proposed circulation plan and potential conflict points.



External

Downtown Streets

The gasoline trucks are essentially forced, by a lack of practical alternatives, to use downtown streets that are not designed to handle efficiently large truck turning radii. This is particularly true at the intersection of 9th Street and Pitkin Ave. and at 9th Street and Ute Ave. At these intersections, there is no room without property acquisition and subsequent reconstruction of the intersection to put in the type of radius necessary for large trucks. The amount of curb damage and wheel tracks over the curbs indicate the difficulty large trucks have in accomplishing the turn from westbound Ute Ave. to southbound 9th St. This is even after the City widened

the intersection to make this movement easier. The following photograph shows the damage to the curb and sidewalk area from trucks overturning the radius at 9th Street and Ute Ave.

Both Pitkin and Ute Avenues are fairly narrow streets. Commercial establishments, residences and parks are very close to these streets, which is not desirable when considering routes for hazardous materials, such as gasoline.

Railroad Crossing

Trucks in and out of the facility that go north on 9th Street must cross the active rail lines of the Southern Pacific Railroad. These tracks are used frequently during the day often by long coal trains. According to the Grand Junction Police Department,

there hasn't been an accident at this location for a number of years. This type of accident is a random occurrence and consequently unpredictable. However the greater the frequency of crossings the greater opportunity for an accident to occur. A vehicle/train accident is likely to be very serious with loss of life. Recent examples include:

1) South of Denver at US-85 and Titan Road, six teens were killed trying to cross the tracks against the red flashing lights

2) In Fox River, Illinois, eight school children perished when a signal timing error forced the bus to stop on the tracks.

3) In South Florida during the reconstruction of I-95, six people died who were in cars in front and back of a gasoline tanker truck that got stuck on RR lines because of heavy traffic.

Although this type of accident is random and unpredictable, it happens far too often. A reduction in the frequency of crossings would help reduce the possibility of an accident at this crossing.

Alternative Routing

The City and other agencies have examined truck and hazardous material routing through the City and County. But the group has found thus far that routes are limited and acceptable alternatives for the Conoco site are not available at the present time. As the Conoco facility serves the western slope region, the gasoline trucks want to access the main highways as expeditiously as possible. This means that trips to and

from the east, west, and north must use the 9th Street routing to Ute and Pitkin Avenues and the I-70 business loop. Trips to and from the south on Highway 50 can use 4th Avenue to the US-50 viaduct. Southbound on-ramp and northbound off-ramps are available at this location. The southbound on-ramp is difficult for large trucks as it involves a 120 degree left turn and a short merging area at the base of the viaduct.

Using D Road as alternative has been suggested but the only river crossing is at 32nd Road. This creates a much longer trip to US-50 and, consequently, is not likely to be used by the majority of the truck drivers.

Adjacent Streets

The adjacent streets of 9th Street and D Road carry a fairly heavy volume of traffic. 9th Street just north of the D Road intersection carries an Average Daily Traffic Volume of 11,482 according to City counts. D Road has 4,960 ADT and 9th Street carries 6,592 ADT. This shows that there is a significant turning movement to and from 9th Street and D Road. The City checked the intersection for signal warrants, but it failed to meet any warrant. Frequently the intersection backs up due to train crossings.

The City and Conoco have considered opening a driveway directly opposite the D Road intersection. But this is too close to the RR tracks for a full-movement intersection and would probably create more problems than it would solve, particularly since the majority of the gasoline trucks would turn north on 9th Street anyway.

III CONCLUSIONS

There are major concerns in terms of traffic and transportation impacts with the proposed modifications to the Conoco Products Loading Terminal. The modifications which include two large storage tanks and a staging plan on 2nd Avenue for trucks waiting to be loaded, obiviously indicates that an increase in truck traffic using the facility will result from the modifications.

The review by ATC finds that the preferred on-site circulation and options proposed by Conoco is an improper use of city streets and could expose the city to liablity issues. Access from the site to main highways requires that the majority of the gasoline truck traffic must use downtown streets of Ute and Pitkin Avenues via 9th Street. These streets, despite some recent improvements, are inadequate to handle large truck turning radii. Alternative routing on designated hazardous material routes is precluded by the lack of grade separated RR crossings and river crossings east and west of the site. Finally, a major concern is the 9th Street at-grade crossing of the very active Southern Pacific Railroad tracks. More gasoline trucks crossing at this location is undesirable considering the accident prone nature of crossings like this.

In the opinion of ATC, the traffic and transportation impacts of the proposed modifications the the Conoco Products Loading Terminal should be avoided by denying the conditional use permit application.

Michelle L. Ashton
Staff Engineer
Regional Engineering
Rockies Business Unit

Conoco Inc.
5801 Brighton Blvd.
Commerce City, CO 80022
(303) 286-5839

November 22, 1995

Kristen Ashbeck
Community Development Department
250 North 5th St.
Grand Junction, CO 81501

RE: Response to Review Comments - File #VR-95-176

Dear Ms. Ashbeck:

In September Darrel VanHooser from the Conoco Right-of-Way division submitted a permit application for a Vacation of Alleyways and a Conditional Use permit. In mid-October, a list of review comments was sent to Darrel VanHooser. This package addresses those review comments. The package incudes a written response to the permit review comments, the stormwater management plan for the site, and a plot plan of the site. A package is included for the Grand Junction Fire Department, the City Development Engineer, and the Community Development Department.

Three comments will be addressed separately by Darrel VanHooser. They are both comments under the Vacation of Alleyways and Item 7 under the Condition Use permit.

There has been one minor change to the tank layout for the Conditional Use Permit. The #2 Diesel tank has been downsized to 25,000 barrels from 30,000 barrels. The location of the tank has not changed.

After you have had time to review the package, I would like to set up a meeting between Conoco and the three reviewing agencies with comments ensure that all questions have been answered. I would like to schedule this meeting the week of December 6 or December 13. Please contact me at (303) 286-5839 with a meeting time or any questions.

Sincerely,

Michelle Ashton

Michelle Ashton

a:permit
cc: Darrel VanHooser, Mark Johnke-Rooney Engineering

CONOCO INC.

Proposed Grand Junction Terminal Expansion

Response To Preliminary Permit Review Comments

Grand Junction Fire Department

1. Secondary Containment

To provide secondary containment for the two (2) proposed storage tanks, a concrete retaining wall will be constructed around and between both tanks. The retaining wall will be approximately 12.5 feet in height around the perimeter. Between the tanks, an intermediate concrete dike 3 feet in height will be installed. The thickness of the perimeter and intermediate dikes will be determined during the engineering design; however, it is expected that the walls will be approximately 18 inches thick.

The required height of the perimeter retaining wall was calculated based upon the volume of liquid contained in the largest tank (30 MB), plus the volume of 24-hour rainfall for a 25-year storm event (2.06 inches), plus the maximum volume of fire protection water that could be used in a 20-minute period (24,050 gal. for fixed and supplementary systems and cooling water combined). The volume of the second tank below the height of the dike was also deducted from the calculated storage capacity of the secondary containment.

2. Overflow Control

As primary overflow containment for the diked area around the new tanks, the existing 2000 bbl. Tank 8107 will be emptied and cleaned. Piping will be installed from the new diked area to feed Tk. 8107. To initiate and control flow into the tank, valves will be installed in this piping outside the diked area. Connections for a portable pump to further evacuate the new diked area into Tk. 8107 will be also be furnished in the piping.

3. Tank Fire Suppression System

Fire suppression and protection equipment will be installed for the new tanks as follows:

Item	New Gasoline Tank No. 8112	New No. 2 Tank No. 8113
Nominal capacity (MB)	30	25
Diameter (ft.)	67	67
Roof type	Fixed cone with self-buoyant internal floater	Fixed cone with self-buoyant internal floater
Top side fixed foam application:		
• no. of foam outlets	1	1
• gpm/sq. ft.	0.10	0.10
• sq. ft. protected	3525	3525
• application duration (min.)	30	20
• total gal. applied	10,575	7,050
Supplementary protection:		
• no. of hose streams	2	included
• gpm per hose stream	50	"
• application duration (min.)	20	"
• total gal. applied	2,000	"
Cooling water:		
• no. of streams	1	included
• gpm/stream (estimated)	750	"
• application duration (min.)	30	"
• total gal. applied	22,500	"

4. Truck Rack Spill Control

In the truck rack area, sloped concrete paving captures any liquid spilled during loading. The paving is equipped with a center drain and piping that routes spills to a below-ground knockout tank. From the knockout tank, liquid is pumped to a 6000 gal. above-ground tank for storage. To address unanticipated product releases, a buried 6000 gal. emergency overfill sump tank is also connected to the knockout tank.

During the proposed expansion project, additional concrete paving and containment curbing will be installed in the truck rack area. The additional paving will cover an area of approximately 15' x 50'. New curbing will surround the existing and new paving, providing a freeboard of approximately 4 inches over the combined 30' x 50' area. The combined overflow containment capacity of the emergency overfill sump tank and the curbed concrete paving will be approximately 9700 gallons.

5. Truck Rack Piping and Fire Protection

The new piping installed in the loading rack area will be designed in accordance with ANSI/ASME B31.4.

Truck fire suppression equipment will be installed in conjunction with the proposed terminal expansion. It is anticipated that the system will be a combination automatic water deluge, coupled with manual foam activation. National Fire Protection Association Standard 16 and referenced publications will be followed in designing the system.

6. Truck Route Selection

Approximately ten (10) independent trucking companies are involved in transporting petroleum products from the loading terminal to retail outlets in and around Grand Junction. The routes selected by these companies are chosen at the discretion of the particular trucking company, likely based upon that company's assessment of route feasibility considering the locations of the retail outlets served.

Conoco is not involved in operating the trucks and does not own or operate the retail outlets supplied from the Grand Junction terminal. Consequently, it would be difficult for Conoco to address the current manner of route selection or any possible alternatives.

City Development Engineer

1. A storm water management plan for Conoco's terminal site is provided as an attachment to this document.

2. A Grand Junction city ordinance prescribes that fees be levied on new business construction to the degree that such construction will generate an increase in the number of vehicle trips per household. After discussing the particulars of this ordinance with the city development engineer, the applicability of the ordinance to Conoco's proposed expansion is not yet clear. In summary, the number of vehicle trips per household as well as the number of households will vary, either up or down, regardless of whether or not the proposed facility expansion is approved.

Conditional Use Permit

Population growth in the Grand Junction area has created an increased local demand for gasoline and distillate fuels. As the primary products distribution terminal in the area, Conoco's facility has been supplying a significant portion of this increase. Volumes at the terminal have grown; however, not to the extent that constructing a new terminal in a more remote location can be justified.

To improve the terminal's ability to serve the current Grand Junction market, it is necessary to construct additional storage tanks and to reduce the time required to load trucks and off-load railcars.

Submittal Requirements - General Criteria (Section 4-8-1)

1. Paragraph A

   The Grand Junction terminal is located in an area of commercial and light industrial business. Similar to the terminal, which is engaged in the wholesale distribution of manufactured petroleum products, adjacent businesses distribute manufactured products primarily to contractors or commercial customers. These businesses include Denning Lumber (distributor of lumber mainly to contractors or builders), Monroe Pumps (sales and service of irrigation to industrial size pumping equipment), The Filter House (filter distributor), Pennzoil (bulk lube oil distributor), and various shops, garages and maintenance facilities of the Colorado State Highway Department.

The proposed expansion of the Conoco terminal involves constructing facilities essentially the same as those that presently occupy the site - tanks, retaining walls, pumps and piping. Compared to the existing situation, the proposed new facilities will serve to reduce adverse site impacts:

- Traffic flow at the site will be better controlled and dust and noise will be reduced. Currently, trucks utilize the majority of the vacant lot south of the terminal for maneuvering and vehicle staging. With construction of the new tanks and retaining wall, the truck staging area and route to the loading rack will be much more narrowly defined.

- By increasing the truck loading rate at the terminal, the waiting time prior to loading (and likewise the number of trucks waiting to load) will decrease. Vehicle congestion and noise will be reduced.

- The additional tankage planned for the site will enable Conoco to increase product inventories and provide a better buffer for those times when railcar deliveries are delayed. Product outages at the terminal should decrease. Compared to the current situation where many trucks arrive to load product following an outage, traffic flow through the terminal should be more uniform. Congestion and noise will be reduced.

- Minor modifications planned for the railcar off-loading piping will decrease the time required to empty a railcar. The terminal will be better able to keep product available, thereby reducing congestion and noise.

2. Paragraph B

To mitigate any impacts on adjacent properties related to the proposed expansion, primary consideration has been given to traffic flow, safety, and buffering:

- The construction of the retaining wall around the tanks will define the truck staging area and the approach drive to the loading rack. Trucks will enter the site from 9th Street, pulling first into the staging area located parallel and to the south of 2nd Avenue. As the lane into the loading rack clears, staged vehicles will take their turn crossing 2nd Avenue and entering the approach lane.

As a result of the proposed expansion, traffic will flow in more orderly fashion through the terminal. Second Avenue will continue to be crossed by trucks entering the loading rack area; however, the staging and crossing area will be more clearly defined. In addition, the proposed loading rack modifications and new tank construction will reduce the volume of truck traffic waiting to the south of 2nd Avenue to load.

- From the standpoint of safety, the project will comply with requirements set forth in the Uniform Fire Code as administered by the Grand Junction Fire Department. Tank and dike spacing and setback distances, secondary containment and overflow sizing, and fire suppression equipment requirements will be followed as determined in cooperation with the Fire Department.

- The activities at the terminal will continue to be buffered from the adjacent properties by existing public ways and alleys. The tank retaining wall and planned landscaping will provide further isolation for the terminal.

3. Paragraph D

The proposed expansion will not increase sewage, waste, natural gas, or domestic water requirements at the terminal. The use of electricity will increase slightly, as a result of the additional pumps and metering equipment associated with higher truck loading rates. However, the new pumps, meters, control valves and electronic preset will not operate continuously and their overall impact on terminal electricity consumption will be minimal.

The planned fire suppression system for the loading rack and the new tanks will increase terminal water requirements in the event of a fire. The city utility engineer, who was consulted to address this potential water load, has advised that loads as high as 1500 gpm should not adversely impact water availability in the area. The tank fire suppression and cooling equipment will have a combined demand of approximately 1200 gpm.

As is currently the case, the Grand Junction Fire and Police Departments would become involved in the event of a major fire or spill. The additional fire protection equipment planned for the expansion will improve the response capability of these organizations.

Response To Preliminary Questions/Concerns

1. Ultimate Plans for the Terminal Site

Concurrent with terminal expansion, the five (5) existing 400 bbl. tanks located adjacent to the railroad will be cleaned and removed. No further developments are planned for that area once the tanks are removed.

The construction of a new 2-bay loading rack at the terminal is not being considered at this time.

2. Truck and Rail Traffic

Truck and rail traffic through the terminal have increased in recent years as a result of population growth in the area and the corresponding increase in demand for petroleum products.

The proposed terminal expansion in and of itself will not prompt higher levels of truck and railcar traffic. Rather, the proposed expansion is a response to a growth in demand that has already occurred. Traffic congestion at the site is expected to improve as a result of the proposed expansion.

Regarding the operation of trucks through the city and at the terminal, please refer to the Grand Junction Fire Department section, response no. 6, and the enclosed terminal site plan.

3. Pumps and Piping From the New Tanks

As shown on the terminal site plan, the new pumps associated with the two (2) proposed tanks will be located adjacent to the tanks, south of 2nd Avenue, in a segregated area just outside the secondary containment dike for the tanks. A smaller concrete retaining wall, approximately 30 to 36 inches in height, will be constructed on the north side of the pump area to confine minor spills.

Piping from the proposed tanks to the new pumps and from the pumps to the existing loading rack will be constructed primarily above-ground (other than the crossing of 2nd Avenue) as shown on the site plan. Fill lines for the new tanks will also be constructed above-ground.

4. Second Avenue Crossing

Buried piping will be installed for the crossing of 2nd Avenue as shown on the terminal site plan.

5. Surface Runoff and Drainage

The topography of the existing terminal site drains surface water towards the south and east corners of the terminal, in the direction of 9th Street, and ultimately to the Colorado River located approximately 1/2-mile to the south. A similar finished grade, directing surface runoff towards 9th Street, is planned for the area south of 2nd Avenue following construction of the proposed tanks.

To provide drainage capabilities for the secondary containment surrounding the proposed tanks, each diked area will be provided with a steel drain pipe through the retaining wall. Each drain pipe will be outfitted with a steel valve located outside the wall. Any necessary draining of the diked area will be accomplished by connecting trucks to the drain piping and transferring water to the terminal's above-ground slop tank for ultimate recycling.

It should be noted that the existing tank retaining walls, also equipped with drain piping and valves, have never in recent memory confined runoff to the extent that it has been necessary to drain water to the outside.

6. Tank Painting

It is intended to paint the proposed new tanks white, identical in color to the existing tanks.

7. Open Space Fees

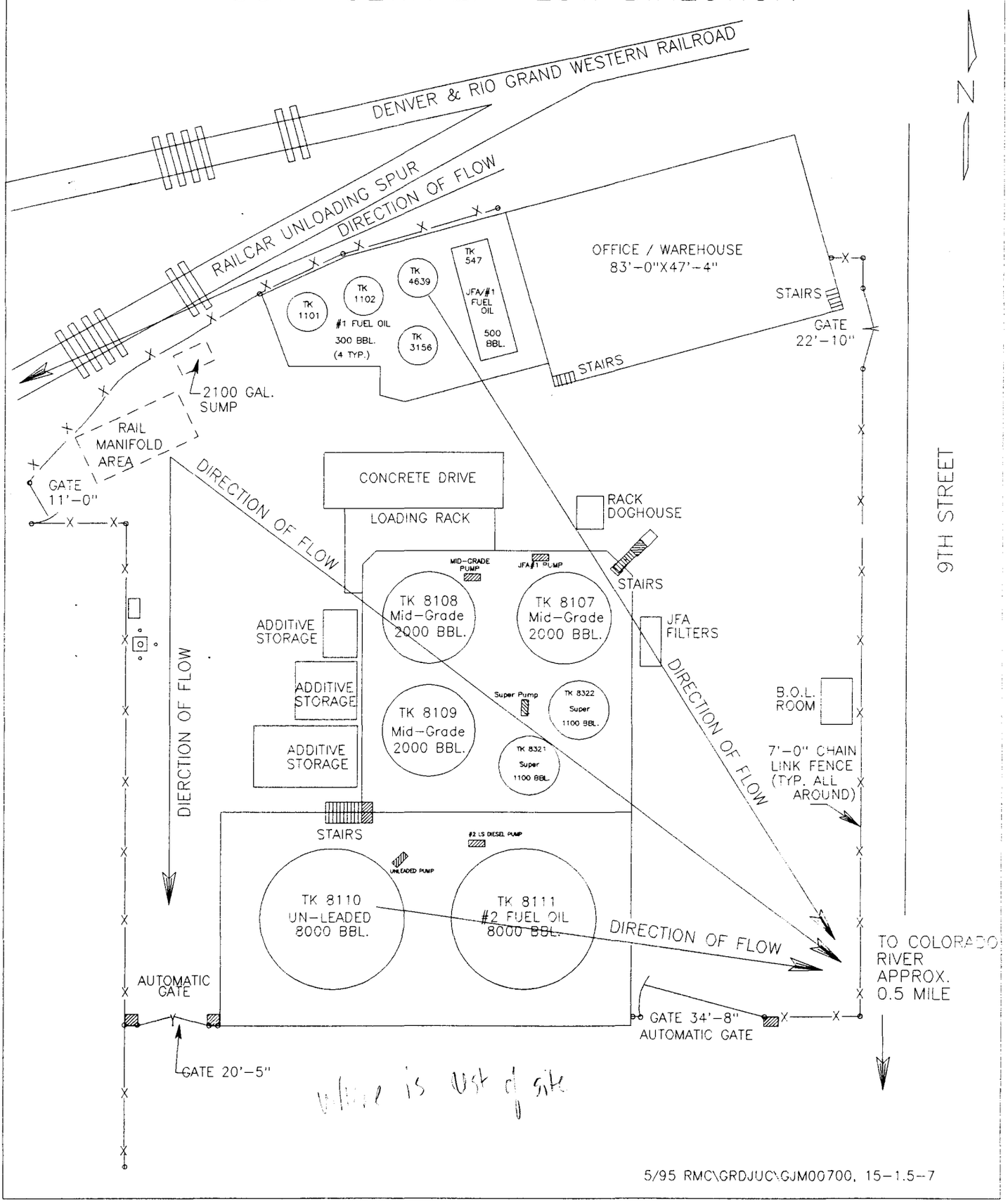
Conoco will furnish a response to this item under separate cover.

8. Landscaping

As shown on the terminal site plan, it is proposed to landscape portions of the terminal property located adjacent to 9th Street. South of 2nd Avenue and east of the proposed new tanks, an area having approximate dimensions of 12' x 100' will be landscaped (subject to the approval of the Fire Department). North of 2nd Avenue between 9th Street and the terminal fence, an area 7' x 100' will be landscaped.

The City Parks and Recreation Department will be consulted prior to developing the details of the landscaping plan.

GRAND JUNCTION TERMINAL
SURFACEWATER FLOW DIRECTION



5/95 RMC\GRDJUC\GJM00700, 15-1.5-7

REVIEW COMMENTS

FILE #VR-95-176

TITLE HEADING: Vacation of Right-of-way & Conditional Use Permit - Gasoline Storage Tanks

LOCATION: 631 S 9th Street

PETITIONER: Conoco, Inc.

PETITIONER'S ADDRESS/TELEPHONE: 6855 S. Havana, Suite 180
Englewood, CO 80112
303-649-4165

PETITIONER'S REPRESENTATIVE: Darrel Vanhooser

STAFF REPRESENTATIVE: Kristen Ashbeck

NOTE: THE PETITIONER IS REQUIRED TO SUBMIT FOUR (4) COPIES OF WRITTEN RESPONSE AND REVISED DRAWINGS ADDRESSING ALL REVIEW COMMENTS ON OR BEFORE 5:00 P.M., DECEMBER 27, 1995.

COMMUNITY DEVELOPMENT DEPARTMENT **12/18/95**
Kristen Ashbeck **244-1437**

1. Revocable Permits to be approved by City Council will be required for the piping under 2nd Street and the truck staging area. Provide legal descriptions of the portions of the right-of-way to be used for each purpose.
2. Provide a drawing illustrating the height of the proposed tanks relative to surrounding structures/uses in order to better assess the visual impact of the project (see Fire Department comments).
3. If the long-range master plan is not to be considered at this time, be advised that any future changes to the terminal will require re-review of the Conditional Use Permit through this same process.
4. Community Development will discuss the requirement of Open Space fees regarding the previous use of the western portion of the expansion area with the Parks and Recreation Department.
5. A more detailed landscaping plan will be required prior to issuing a Planning Clearance for a Building Permit.

GRAND JUNCTION FIRE DEPARTMENT **12/18/95**
Hank Masterson **244-1414**

See attached comments.

GRAND JUNCTION POLICE DEPARTMENT 12/19/95
Dave Stassen 244-3587

The Grand Junction Police Department has concerns with the possible suggestion that truck traffic be rerouted to D Road. I understand the idea is to have the trucks that are exiting the facility go directly across 9th Street and East on D Road instead of making a left turn across traffic (on 9th Street) and then North on 9th Street. This is to ease the traffic conflict created by trucks making a left turn across traffic.

Looking at this from a practical traffic matter, trucks making a left turn across traffic to go North on 9th Street pose no more of a traffic conflict than trucks going across traffic to go East on D Road. The traffic is disrupted by a truck going across traffic either way.

Another aspect of this problem is the width of D Road and the nature of the area is flows through. D Road, from about 28 Road to 32 Road is residential and agricultural in nature. The road is narrow and often has children in the right-of-way between the roadway and the surrounding property/fence lines. I think the increased truck traffic and the nature of the material in the trucks is incompatible with these existing uses. The alternative is to continue to route this traffic down I-70B.

I-70B is larger and more able to handle the increase in tanker truck traffic than D Road. By having the light at 9th Street and Pitkin Avenue, trucks can make the right turn to Eastbound I-70B easily and the higher speeds of Pitkin and I-70B get the trucks out of the residential area that stretches from 9th Street to about 13th Street. The difference here is there are about four blocks of residential area to go through on Pitkin instead of five miles of residential on D Road.

Generally, the Police Department discourages routing the tanker truck traffic to D Road.

CITY DEVELOPMENT ENGINEER 12/19/95
Jody Kliska 244-1591

1. The stormwater plan submitted does not meet the specific requirements of the SWMM Manual. Additionally, it appears a stormwater permit is required from the State Health Department. The contact person is Sarah Johnson at (303)692-3590. Their permit requires preparation of a stormwater management plan which is more detailed than what was submitted.
2. The traffic projections for the increase in trucks needs to be quantified in writing. Some numbers were mentioned in the meeting last week and if correct should be documented.
3. Please provide additional information on the proposed truck staging area in the 2nd Avenue right-of-way. How much area is needed for truck staging? It appears the staging area should be on the north side of the right-of-way to avoid conflicts with other traffic utilizing the right-of-way.

Ron DeVille, P.E
Director, Projects
Conoco Regional Engineering
Rockies Business Unit

Conoco Inc.
6855 South Havana St., Suite 200
Englewood, CO 80112
(303) 649-4065

December 27, 1995

Ms. Kristen Ashbeck
Community Development Department
250 North 5th Street
Grand Junction, CO 81501

Re: Response To December 18, 1995 Review Comments - File #VR-95-176

Dear Ms. Ashbeck:

Attached please find Conoco Inc.'s response to the city of Grand Junction's December 18, 1995 correspondence regarding the proposed construction of two (2) storage tanks at the Grand Junction terminal. The December 18 correspondence included review comments from the Community Development Department, Police Department, City Development Engineer, and Fire Department. Please confirm that all other city agencies are satisfied with Conoco's proposal as submitted.

We appreciate the time invested by the city to research and respond to our proposal in such detail. The information furnished will greatly assist Conoco in progressing the design of the expansion. Unfortunately, we have not been able to thoroughly consider, investigate, and draft a final reply to each comment within the available time frame. We have endeavored to supply no less than a preliminary response to each comment; however, certain issues will require additional work or further discussions with the appropriate city agency. In some cases, a request for clarification of the comment has been indicated.

Conoco has several basic concerns that we would like to discuss with the city. In particular, the fire suppression system requirements exceed the specifications of the Uniform Fire Code as well as current industry practice. If these requirements stand as written, considerable cost will be added to the project. Conoco is committed to installing a well-designed fire system. However, the incremental requirements for fire suppression stand to jeopardize the economic viability of the project.

Secondly, the terminal has a long-standing record of operating safely. On-site inspections conducted by the fire department are passed routinely. However, additional safety features for the existing facilities have been woven into the permitting process for the new tanks. Please confirm again our understanding that a permit is not required to modify existing facilities. Conoco is currently proceeding with the planned modifications to the existing facilities. This is being done under the assumption that the additional safegaurds will not be installed unless the permit for the new tanks is approved under conditions that warrant Conoco undertaking the project.

Conoco is also concerned that resolution of the many new issues may not be possible prior to the planned January 16, 1996 hearing. We would appreciate your comments as to whether this hearing will be worthwhile if all issues are not resolved in advance.

Thank you for your assistance in the evaluation of Conoco's terminal expansion proposal. We will welcome any opportunity to further discuss the city's remaining questions or concerns at your earliest convenience.

Sincerely,

Ron DeVille

Ron DeVille, P.E.
Director, Projects

CONOCO INC.

Proposed Grand Junction Terminal Expansion

Response To December 18, 1995 Permit Review Comments

Community Development Department

1. Legal Descriptions

The Conoco terminal is located in the Milldale Subdivision, Block 10, Lots 1 through 7 and 17 through 24, Section 23, Township 1 South, Range 1 West, Mesa County, Colorado. Within this site legal description, the 2nd Avenue pipeline crossing and the truck staging area can be defined approximately as follows:

Pipeline crossing - Beginning at the southeast corner of Lot 17, proceed west for a distance of 105' to the point of beginning for the crossing area. From the point of beginning, proceed to the west a distance of 30', then to the south a distance of 60', then to the east a distance of 30', then to the north a distance of 60'.

Truck staging - Beginning at the southeast corner of Lot 17, proceed to the south for a distance of 30' to the point of beginning for the staging area. From the point of beginning, proceed to the west a distance of 213.6', then to the south a distance of 30', then to the east a distance of 213.6', then to the north a distance of 30'.

As stated, the above descriptions are approximate. Exact legal descriptions can be determined by an on-site survey at a later date if so required.

2. Perspective Drawings

See comments under Grand Junction Fire Department, Item 1.

3. Long-Range Master Plan

Conoco is considering no long-range master plan beyond that presently proposed to the city. As has been mentioned in various discussions, the construction of a new truck rack at some future date is a distant possibility. However, the need for a new rack is so uncertain that Conoco cannot justify its inclusion in any development plan for the terminal at this time.

4. Open Space Fees

Conoco will furnish a response to this item in early January, 1996 under separate cover.

5. Landscaping Plan

A more detailed landscaping plan will be provided to the city prior to January 16, 1996.

Police Department

As stated in previous information supplied to the city, Conoco does not own, operate, nor in any way control the trucks that load product at the Grand Junction terminal. The trucks are owned by separate companies having no legal affiliation or relationship with Conoco. Consequently, Conoco may provide a conduit through which routing recommendations can be passed to the truckers; however, Conoco has no right to dictate route requirements to independent companies. To effectively address any concerns regarding the streets and roads utilized for truck traffic, the individual trucking companies should be contacted directly by the city agency having direct authority. In addition, Conoco would support the city's installation of appropriate signage at the terminal to control and direct truck traffic as desired.

City Development Engineer

1. Stormwater Management Plan

Conoco will provide additional information to the city by January 12, 1996.

2. Traffic Projections

Presently, approximately 29 trucks load product at the terminal each day. In the future, if gasoline demand growth continues, up to 40 trucks may load each day.

As an offset to any traffic increase through the terminal, truck traffic in the area will be reduced with the relocation of Viking Freight from the south portion of Conoco's terminal. It has not yet been determined what level of traffic reduction will result from the Viking relocation.

3. Truck Staging

It is proposed to utilize a 30' wide by 214' long portion of 2nd Avenue for truck staging. To avoid conflict with traffic entering Denning Lumber and to provide sufficient turning space for trucks entering the terminal loading area, the staging must be located on the south side of the 2nd Avenue right-of-way.

Grand Junction Fire Department

1. Terminal Master Plan and Drawings

At this time, no long-term expansion plans for the terminal, beyond those being proposed, are under consideration by Conoco.

Conoco is considering providing the perspective or profile drawings of the terminal requested by the fire department. However, our early assessment indicates that considerable aerial photography and drafting work would be required. As a result, an alternative method of performing the desired emergency response evaluation may prove to be more practical.

2. Flow Test

Conoco's understanding is that a worst case fire scenario would involve a fire in the largest tank, that being the proposed 30 Mbbl. gasoline tank. For such a fire, considering the fire department's stated suppression and cooling system goals, we calculate that the necessary water supply would consist of the following:

Item	Qty./Vol.
Top-side fixed foam application:	
• application rate (gpm/sq. ft.)	0.20
• sq. ft. protected	3525
• total gpm required	705
Supplementary protection & cooling water:	
• total gpm required (assuming 6 monitors at requested total water/foam flow rate)	750
Total application rate (gpm)	1455

It is Conoco's impression that the fire department has recently performed flow tests verifying that water is available at the terminal site in excess of the rate calculated above. If this information is not correct, or if we have misinterpreted the fire department's fire water application requirements, please advise.

3. Looped Fire Line

It is Conoco's intention to design and install an appropriate fire suppression system for the truck rack and the new tanks, including a looped fire line if justified.

The fire department's request to add a looped fire line to the site, equipped with post indicator valves and backflow prevention, will increase the cost of the fire suppression system by an estimated $50,000.

4. Supplemental and Cooling Water

It is our understanding that the fire department is requesting six (6) monitor nozzles connected to six (6) hydrants, with the hydrants then tied to the terminal's fire water line. In addition, each monitor nozzle would be designed to allow the introduction of portable supplies of foam. Please advise if this understanding is correct or clarify if necessary.

The National Fire Protection Association Standard 11, Table 3-9.1 specifies that, for a largest-tank diameter between 65 and 120 feet (the proposed Conoco tanks are 67' in diameter), a minimum of two (2) supplementary hose streams are required. Therefore, please provide an explanation for the three-fold increase in the fire department's prescribed number of supplementary monitors. We would also appreciate information regarding the proposed location of the six (6) monitor nozzles and hydrants.

5. Fire Department Connections

Conoco plans to install connections on fire lines that will allow the fire department to supplement available water pressure if needed.

6. Foam Supplies

When all requirements of the fire suppression system have been determined, it will be necessary to evaluate methods to prevent system freeze-up. A heated building for foam storage and delivery may not be warranted if alternative methods of protection will achieve the desired objective more economically.

Regarding the size of the foam storage tank, it is not clear if the fire department requires 30 minutes or 55 minutes (see Item 24 below) of foam application.

As discussed in Item 2 above, a worst case fire is understood to involve the largest terminal tank. Applying the requested 0.2 gpm/sq. ft. application rate to the 3525 sq. ft. tank area for a duration of 55 minutes, and assuming a foam concentration of 3 percent, a foam tank size of approximately 1200 gal. would be necessary. Additional foam volumes beyond this amount would likely not be stored on site. The National Fire Protection Association (NFPA) Standard 11, Section 2-3.2.5.2 states that reserve foam supplies are acceptable if available from an approved outside source within 24 hours.

7. Foam Chambers

Conoco plans to install a pontoon type metal internal floating roof constructed in accordance with American Petroleum Institute Standard 650 in each of the new tanks. Further, the internal floaters will be designed with 100 percent excess buoyancy and consequently would not sink or tip even if half of the flotation is lost. NFPA Standard 30 (Section 2-3.2.1, paragraph (a) 2.ii) specifically recognizes that this design of internal floating roof mitigates the tipping concern when compared to an internal floating pan type roof. Consequently, the stipulations that a second foam chamber and center/perimeter roof pulley devices be installed in the tanks are not consistent with the body of historical experience upon which the NFPA standards are based (see also NFPA 11, Table 3-2.3.2.1).

8. Subsurface Injection

NFPA Standard 11, Section 3-4.1.1.1, states that for covered internal floating roof tanks, subsurface and semisubsurface injection shall not be used because of the possibility of improper distribution of foam. Also, see Item 7 above regarding the planned design of the internal floating roof which will mitigate the likelihood that the roof would sink in the event of a fire.

9. Overflow Protection

The existing tanks at Conoco's terminal are equipped with mechanical shutdown switches that automatically alarm and stop flow in the event that a high fluid level occurs in a tank. These switches are tested monthly to ensure proper operation. It is planned to install similar devices in each of the proposed new tanks.

The Conoco tanks are filled by railcars unloaded locally during manned pumping operations at relatively low flow rates. Conversely, the tanks at most other terminals are filled by high capacity pipelines, operated remotely at high flow rates. This distinct difference may justify duplicate mechanical and electronic high level alarm/shutdown devices for pipeline-fed terminals. However, for the controlled and supervised tank fill procedures followed at Grand Junction, the existing single-switch system has proven to be sufficient.

10. Emergency Shutdown

With the installation of a fire suppression system for the loading rack, the existing permissive circuitry will be modified to include the automatic shutdown of loading operations upon activation of the deluge fire suppression system. Conoco had planned to wire the emergency shutdown system in this fashion prior to receiving comments from the fire department.

11. Truck Rack Spill Containment

The containment volume required compared to that planned for Conoco's truck rack is shown below in summary:

Item	Qty./Vol.
Containment volume required:	
• deluge application rate (gpm/sq. ft.)	0.16
• truck rack square footage (50' x 20')	1000
• deluge duration (min.)	20
• total deluge volume (gal.)	3,200
• volume of largest truck loading (gal.)	8,000
• **Total containment volume req'd (gal.)**	11,200
Containment volume available:	
• emergency sump (gal.)	6,000
• rack paved & curbed area (50'x45'x4") - gal.	5,600
• **Total containment volume available (gal.)**	11,600

A general drawing of the existing emergency overfill sump will be made available to the city in early January, 1996.

12. API Oil/Water Separator

The Conoco terminal collects and stores contact water on-site for subsequent transport by truck to a disposal facility. Since water is not treated on-site for eventual discharge, an oil/water separator is not required for the facility. Likewise, overflow from a truck rack release incident would be stored on-site in the emergency sump and the above-ground slop tank for later transport and disposal.

13. Railcar Spill Containment

A bermed area has previously been constructed around the eight (8) railcar off-loading positions to confine any product released. This bermed area is sufficiently sized to contain a spill from the largest tank car (715 bbl.). If desired, Conoco could perform a survey of the containment berm and supply the city with calculations verifying the capacity of the area.

14. Railcar Emergency Evacuation

The Conoco terminal has in place an emergency response plan that outlines the procedures to be followed under upset or emergency conditions. Included in these procedures are the steps involved in evacuating a railcar from the terminal.

15. Product Transfer

While product transfer and commingling of unlike grades is not desirable for ongoing terminal operations, the truck rack loading arms could be connected to the existing prover return manifold to enable the evacuation of any terminal tank into any other terminal tank.

16. Driver Training

Currently, before any truck driver receives his identification card allowing him to load product at the terminal, the driver attends terminal orientation and safety training. Following the training, the driver must demonstrate competence in loading safely to terminal operators. A document verifying that training has been conducted is signed by the driver and is maintained in Conoco files.

17. Truck Rack Fire Suppression System

Conoco's truck rack fire suppression system will include manual and UV/IR actuation, separate deluge water and foam supply piping, and manual foam activation and manual deluge water deactivation capabilities.

18. Overflow Containment

Conoco has proposed that Tank 8107 be converted to contain overflow from the new tanks' secondary containment. Under the worst case fire scenario envisioned, this 2000 bbl. tank could contain

the 55-minute foam/water deluge of the tank, plus 60 minutes of cooling water/supplementary foam protection.

We request further explanation from the fire department with respect to the following:

- Why is Tank 8107 not considered to be a safe location to direct containment overflow? What specific hazard concerns does the fire department have regarding the characteristics of the drained product/foam/water mixture that would explain why containment in another on-site tank would not be considered safe?

- What is the rationale behind the designation of a long-term fire suppression event as spanning a 10-hour period?

19. Plans and Specifications

Conoco was recently advised that modifications to existing terminal facilities require no Grand Junction city or building permit. Based on this information, we are proceeding with the planned modifications to the truck rack and the railcar off-loading manifold and the replacement of the existing vapor combustion unit.

In addition, for new facilities, Conoco has not previously been informed that the city requires stamped plans and specifications 30 days in advance of the permit hearing. Please clarify if the fire department issues a separate construction permit (aside from the city/building permit), and what drawings/plans/specifications must be submitted how far in advance and to whom.

20. Electrical Equipment

The electrical equipment planned for installation with the proposed terminal expansion will comply with National Electric Code and Uniform Fire Code requirements.

21. Fire Alarm System Wiring

For the proposed terminal expansion, Conoco is planning to install the power supply wiring for all new equipment and the instrumentation/communication wiring for all new equipment in separate conduits. Please clarity if the fire department is suggesting that wiring for the fire alarm system be installed in a conduit separate from other terminal communications wiring. Such conduit segregation among the communications circuitry is not, in Conoco's experience,

typical of standard industry practice. We would appreciate additional information to explain the objective of this requirement if separate communications conduits are desired.

22. Fire Alarm Monitoring

We are discussing the feasibility of transmitting and providing specific alarm information to the fire department via the Grand Junction alarm service that currently monitors the Conoco facility.

23. Truck Traffic Routes

There does not appear to be agreement between the fire department and the police department regarding which exit route loaded trucks should utilize to depart the terminal. Once these agencies have decided upon the appropriate route, Conoco will assist in recommending that truckers follow the designated streets, or in accommodating traffic-control signage that the city may wish to install at the terminal. However, as discussed in the Police Department section, Conoco cannot legally require or interfere in the operations of independent, unaffiliated trucking companies.

24. Fire Flow Calculations

See calculations under Item 2 and comments in Item 18 above.

25. Stormwater Management Plan

See comments under City Development Engineer, Item 1.

26. Railcar Off-Loading Modifications

This work involves the installation of larger strainers in the suction piping of the existing railcar off-loading pumps. As stated in Item 19 above, Conoco has previously been advised that work on existing facilities does not require a permit.

27. Vapor Combustion Unit

To reduce air emissions from the terminal, Conoco plans to replace the existing vapor combustion unit with a similar but more effective model. It is Conoco's understanding that such work involving only existing facilities does not require a permit.

28. Terminal Equipment and Operations

The fire department routinely inspects Conoco's Grand Junction terminal and is well versed in terminal equipment, personnel training, safety procedures, and overall operations. Fire department personnel are familiar with terminal operating, safety and emergency response manuals and training. The Conoco terminal has an excellent safety record and maintains a positive relationship with the fire department.

REVIEW COMMENTS

FILE #VR-95-176 **TITLE HEADING:** Vacation of Rights-of-Way & Conditional Use Permit - Conoco

LOCATION: 631 South 9th Street

PETITIONER: Conoco, Inc.

PETITIONER'S ADDRESS/TELEPHONE: 6855 S. Havana, Suite 180
Englewood, CO 80112
303-649-4165

PETITIONER'S REPRESENTATIVE: Darrel Vanhooser

STAFF REPRESENTATIVE: Kristen Ashbeck

NOTE: THE PETITIONER IS REQUIRED TO SUBMIT FOUR (4) COPIES OF WRITTEN RESPONSE AND REVISED DRAWINGS ADDRESSING ALL REVIEW COMMENTS ON OR BEFORE 5:00 P.M., OCTOBER 26, 1995.

GRAND VALLEY RURAL POWER **10/4/95**
Perry Rupp **242-0040**
No comment.

U.S. WEST **10/4/95**
Max Ward **244-4721**
New or additional telephone facilities necessitated by this project may result in a "contract" and up-front monies required from developer, prior to ordering or placing of said facilities. For more information, please call 1-800-526-3557.

CITY SOLID WASTE MANAGEMENT DIVISION **10/5/95**
Rob Laurin **244-1570**
Okay.

GRAND JUNCTION FIRE DEPARTMENT **10/17/95**
Hank Masterson **244-1414**
This proposal must meet all requirements of the 1994 edition of the Uniform Fire Code and specifically those requirements outlined in Articles 79 and 80 of this code. These requirements include but are not limited to:

1. Secondary containment is required and must be sized to contain the greatest amount of liquid that can be released from the largest tank, plus the volume of a 24 hour rainfall as determined by a 25 year storm, plus the water flow produced from the maximum amount of fire-protection water used in a 20 minute period. The capacity of secondary containment must be calculated by deducting the volume of the second tank below the height of the containment walls.

2. Overflow control from the secondary containment is required and it must direct leakage and fire-protection water to a safe location away from buildings, material or fire protection control valves, means of egress, fire apparatus access roadways, adjoining properties or storm drains.
3. When tanks or groups of tanks containing Class I or II flammable liquids are spaced less than 50' apart measured shell to shell and have a liquid surface area in excess of 1,500 square feet, foam fire protection may be required by the chief. The proposed tanks are spaced 24' apart and have a liquid surface area of 7,000 square feet. Installation of foam fire protection shall be in accordance with UFC Standard 79-1.
4. Spill control and drainage control are required for areas where the loading and unloading of tank vehicles and tank cars occurs.
5. The new piping and equipment proposed for the existing loading rack itself must comply with the requirements of the fire code and the loading rack itself must comply with the requirements of the Uniform Building Code, 1994 edition for a Group H Division 3 occupancy.

In addition to Uniform Fire Code requirements, the Fire Department would like to discuss alternatives to the present movement of tank vehicles through major transportation corridors in the area.

CITY DEVELOPMENT ENGINEER 10/17/95
Jody Kliska 244-1591

1. Please provide a stormwater management plan for this site.
2. What is the existing and proposed traffic generation for this site?

CITY POLICE DEPARTMENT 10/17/95
Dave Stassen 244-3587

The concerns of the Police Department with this project center around the possibility of a large scale incident. Therefore, the Police Department will support whatever suggestions or requirements made by the Fire Department. Any large scale incident would involve joint operations by the Police Department and Fire Department. Since the police would serve in a support role for fire personnel, we will defer to their comments.

COMMUNITY DEVELOPMENT DEPARTMENT 10/17/95
Kristen Ashbeck 244-1437

See attached comments.

CITY UTILITY ENGINEER 10/18/95
Trent Prall 244-1590

SEWER & WATER - CITY OF GRAND JUNCTION
No comment as currently proposed.

TO DATE, COMMENTS NOT RECEIVED FROM:
City Property Agent
City Attorney
Public Service Company
TCI Cablevision

VR 95-176 VACATION & CONDITIONAL USE PERMIT - CONOCO (S. 9th Street)
Community Development - Kristen Ashbeck 244-1437 10/16/95

VACATION OF ALLEYWAYS

Need a legal description of each alley to be vacated.

Also need more narrative as to justification for vacation requests (refer to criteria attached - excerpt from Grand Junction Zoning and Development Code).

CONDITIONAL USE PERMIT

Narrative and drawing must more specifically address the criteria by which a Conditional Use Permit is reviewed (see attached excerpt from zoning code). In particular, more information addressing paragraphs 4-8-1 A., B. and D is required to adequately review the proposal. During initial review, the following questions/concerns were raised that should be addressed by a revised site plan and narrative.

1) Since the Conditional Use Permit is being requested for the entire Conoco site, the site plan should illustrate the ultimate plan for the entire site. Will any/all existing tanks be demolished once new ones are installed? Any future plans for area where existing tanks are located? It has been suggested that Conoco may be considering a double-sided load out rack at this location. Is that still a possibility? Where will it be located and how will truck traffic operate?

2) There are safety concerns with truck/rail/other vehicle traffic generated by this site. How much will rail and traffic increase? How does/will truck traffic operate (truck route through City and to site)?

3) The narrative states that pumps and piping will be installed to route product from the new tanks to the loading rack. Where will these be installed?

4) Where will buried piping be located under Second Avenue? A Revocable Permit will be required for placement of any piping located in the Second Street right-of-way.

5) Drainage is a major concern. Narrative states that drainage pipes will be provided through the retaining wall. Where will they drain to? Need to show some grading/topography information on the plan.

6) The narrative states that the exterior of the tank shells will be painted? What color?

7) Payment of open space fees is required based on 5 percent of the fair market value of the raw land of the area to be developed (lots 5-8, block 12). An appraisal prepared by a certified appraiser is required. Please submit 3 copies of the appraisal once completed.

8) The landscaping requirement for the entire site based on the street frontage (both sides of 2nd Avenue and west side of South 9th Street) of approximately 833 feet would be 833 feet x 5 feet x .75 = 3,123.75 square feet including 7 trees. The total square footage can be reduced if additional trees are provided or trees are provided that are larger than the required 1-1/2 inch caliper for deciduous and 6 foot height for conifers. A better streetscape/screen should be provided including additional trees, berming or hedges/shrubs along the street frontages. The City Parks and Recreation Department can provide a list of recommended species for the area.

9) The City Fire Department has concerns regarding containment and conformance to the Uniform Fire Code. Refer to Fire Department comments for further detail.

REVIEW COMMENTS

ON CONOCO'S RESPONSE TO COMMENTS DATED 12/27/95

FILE #VR-95-176

TITLE HEADING: Vacation of Various Rights-of-Way & Conditional Use Permit - Conoco

LOCATION: 631 S 9th Street

PETITIONER: Conoco, Inc.

STAFF REPRESENTATIVE: Kristen Ashbeck

NOTE: THE PETITIONER IS REQUIRED TO SUBMIT FOUR (4) COPIES OF WRITTEN RESPONSE AND REVISED DRAWINGS ADDRESSING ALL REVIEW COMMENTS ON OR BEFORE 5:00 P.M., JANUARY 26, 1996.

COMMUNITY DEVELOPMENT DEPARTMENT **1/18/96**
Kristen Ashbeck **244-1591**

1. Review agencies except for Community Development, Development Engineer, Police Department and Fire Department were generally satisfied with or made no comment on the initial Conoco proposal. Therefore, subsequent responses to comments have not been forwarded to other agencies for review. However, you will note that there are some additional agencies/groups that have made comment that should be addressed.
2. Did not receive a detailed landscaping plan by January 16, 1996 as stated in the response.
3. Did not receive a Stormwater Management Plan by January 12, 1996 as stated in the response.
4. If the reason that the loading areas is on the south side of Second Avenue is to accommodate the turning radius of the trucks, then how will other large trucks (e.g. using 2nd Avenue to access property to the west) also be able to make the turn without conflicting with the trucks in the loading area? The revocable permit for the staging area may not be granted if such conflicts cannot be avoided.
5. Parks and Recreation Department staff has determined that payment of open space fees is not required for this project.

CITY DEVELOPMENT ENGINEER **1/18/96**
Jody Kliska **244-1591**

1. To date, I have not received either a stormwater management plan or a letter from Mike Miller detailing his conversation with Colorado State Department of Health regarding the need or not for a stormwater permit. I am expecting a plan which shows all of the containment areas and the treatment of all runoff, but it has not arrived.
2. The response about the staging area location needs to be clarified. If Conoco trucks have difficulty making the turn into the site if the staging area is on the north side of 2nd Avenue, it is reasonable to expect other truck users to have the same difficulty. Some additional information about other users, their frequency and types of trucks should be included, as well as the frequency and type of trucks using the staging area. Use of truck turning templates to illustrate the difficulties may be helpful.

TO: Kristin Ashbeck, GJ Community Development Dept.

Anne Landman
P.O. Box 99
Glade Park, CO 81523
(970) 241-3305 Fax (970) 243-0880
afoxland@aol.com

April 23, 1996

***** *FAX TRANSMISSION* *****

TO: Daniel Vanhoosier, Agent, Right of Way and Claims, Conoco, Inc.
RE: Second request for information

Dear Mr. Vanhoosier,

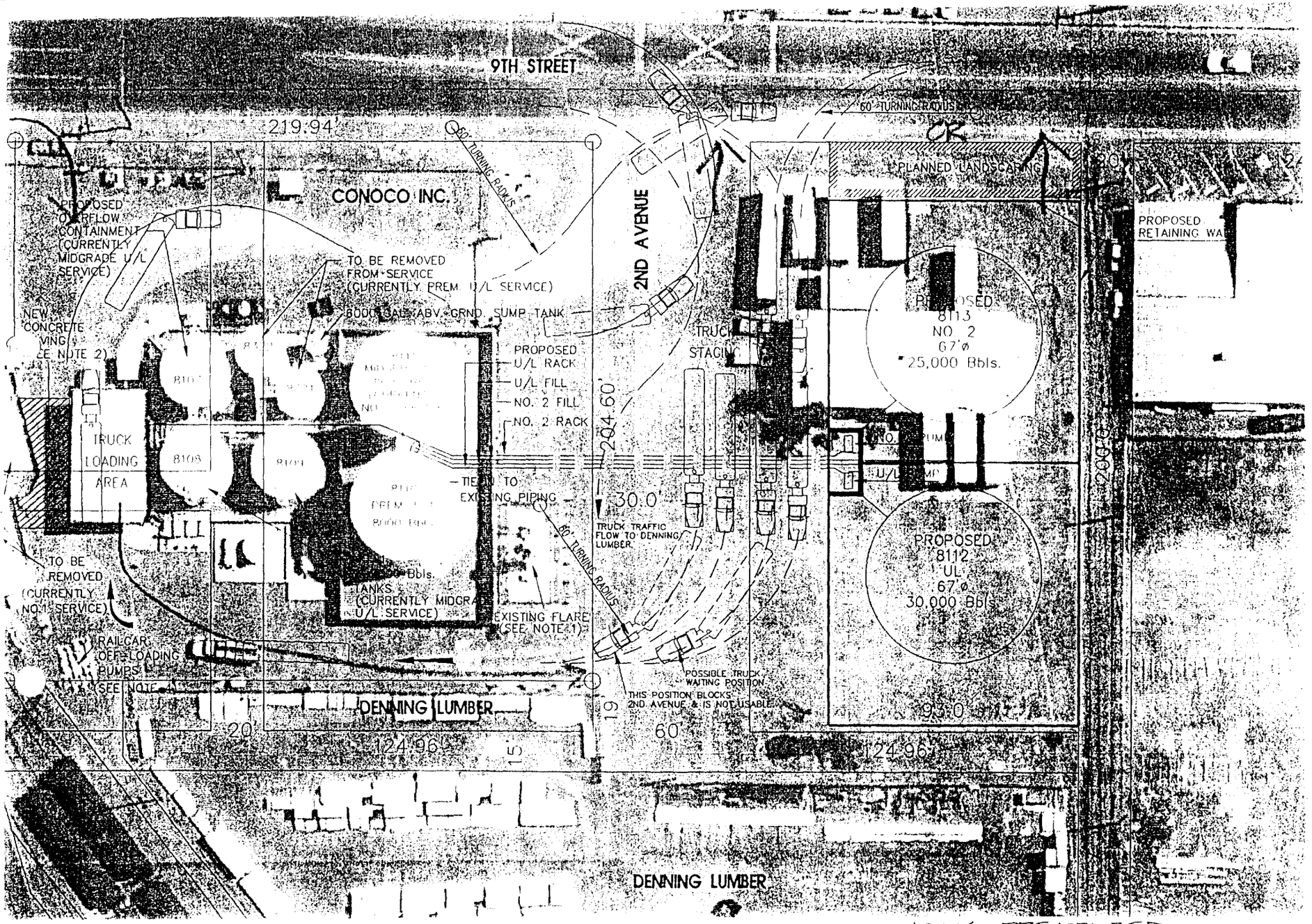
Three weeks ago I sent you a fax wherein I asked you to provide us with a list of the names of other cities or towns where Conoco has previously built gasoline storage tanks of the same or larger capacity as those Conoco proposes to build in downton Grand Junction. I also requested the names and phone numbers of contact people in the Development Departments of those cities and/or towns with whom Conoco worked to get approval for their facilities. I requested the information on behalf of the Concerned Citizens' Resource Association of Grand Junction.

As of this date I have not received any of this information from you, nor has Kathy Howe-Kerr at CCRA's main office (140 Elm Ave. Grand Junction, CO 81501) **This fax is a second request for this information.** Please send the information requested to the address or fax number listed at the top of this letterhead as soon as possible. If you cannot provide the information, please acknnowledge that you have received this letter and send an explanation why the information cannot be provided.

Thank you for your help.

Sincerely,
Anne Landman
on behalf of the Concerned Citizens' Resource Association

cc: Kristin Ashbeck, Grand Junction Community Development Department



CONOCO'S PREFERRED

GRAND JUNCTION FIRE DEPARTMENT 1/16/96
Hank Masterson 244-1414
See attached comments.

MESA COUNTY HEALTH DEPARTMENT 1/11/96
Perry Buda
See attached comments.

CONCERNED CITIZEN'S RESOURCE ASSOCIATION 1/4/96
140 Elm Avenue 256-7650
See attached comments.

MESA COUNTY LOCAL EMERGENCY PLANNING COMMITTEE 1/3/96
Chris A. Brownlee, Chairman 248-6707
See attached comments.

VR 95-176 CONOCO Conditional Use Permit / Alley Vacation
Community Development - Kristen Ashbeck 244-1437 1/18/96

Comments on Conoco's Response dated 12/27/95:

1. Review agencies except for Community Development, Development Engineer, Police Department and Fire Department were generally satisfied with or made no comment on the initial Conoco proposal. Therefore, subsequent responses to comments have not been forwarded to other agencies for review. However, you will note that there are some additional agencies/groups that have made comment that should be addressed.

2. Did not receive a detailed landscaping plan by January 16, 1996 as stated in the response.

3. Did not receive a Stormwater Management Plan by January 12, 1996 as stated in the response.

4. If the reason that the loading area is on the south side of Second Avenue is to accommodate the turning radius of the trucks, then how will other large trucks (e.g. using 2nd Avenue to access property to the west) also be able to make the turn without conflicting with the trucks in the loading area? The revocable permit for the staging area may not be granted if such conflicts cannot be avoided.

5. Parks and Recreation Department staff has determined that payment of open space fees is not required for this project.

STAFF REVIEW

FILE: VR 95-176

DATE: May 30, 1996

REQUEST: Appeal of Planning Commission Denial of Conditional Use Permit
Conoco Bulk Storage Facility

LOCATION: 631 South 9th Street

APPLICANT: Conoco, Inc.

STAFF: Kristen Ashbeck

EXISTING LAND USE: Tank Terminal Facility

PROPOSED LAND USE: Same, Expanded

SURROUNDING LAND USE:
NORTH: Railroad Right-of-Way
SOUTH: Commercial (Munro Supply & Outdoor Storage for Denning Lumber)
EAST: Office/Commercial (CDOT Office/Shops, American Linen, Retail)
WEST: Commercial - Outdoor Storage (Denning Lumber)

EXISTING ZONING: Heavy Industrial (I-2)

SURROUNDING ZONING:
NORTH: I-2
SOUTH: I-2
EAST: I-2 and Public Zone (PZ)
WEST: I-2

STAFF ANALYSIS:

Summary of Project. Conoco, Inc. is proposing to expand its bulk petroleum storage facility located at 631 S. 9th Street. Currently, Conoco has 12 tanks at the facility which have the holding capacity of approximately 1 million gallons of five different petroleum products. Conoco proposes to construct two new storage tanks across 2nd Avenue and south of the existing facility. The combined capacity of the new tanks is 2.3 million gallons. Once the new tanks are constructed, some of the older existing tanks will either be demolished or removed from service.

In addition to the new tank construction and the necessary safety improvements required for them, Conoco is proposing to make modifications to the existing facilities in order to improve railcar unloading rates, truck loading rates and safety features of the site. The new construction and modifications are further described in the Fire Code Issues portion of the staff report.

Relationship to Comprehensive Plan. There is no comprehensive plan for this area of the City however, the Growth Plan is in progress. The draft Growth Plan indicates industrial uses for this area.

Fire Code and Safety Issues. Throughout the review of this proposal, fire code and safety issues have been the primary concern in order to ensure compliance with the Uniform Fire Code and other applicable regulations. The outline below was provided by the Grand Junction Fire Department. It summarizes the main features of the proposed new construction, modifications and fire protection elements of this proposal. Conoco has agreed to provide all of the improvements listed below and, as such, the facility will meet all applicable regulations. Therefore, from a Fire Code standpoint, the net result will be a safer facility than what currently exists. However, the Grand Junction Fire Department is continuing to review other overall public safety concerns as listed in the following summary.

New Construction

1. As previously noted, two new flammable liquid storage tanks will be constructed. Tank #8112 will be 67 feet in diameter, 48 feet high, and store 30,000 barrels of unleaded gasoline (1 barrel=42 gallons). Tank #8113 will be 67 feet in diameter, 40 feet high, and store 25,000 barrels of diesel fuel. Construction of new tanks, piping, cathodic protection and spacing of tanks will be according to the Uniform Fire Code and applicable national standards.

2. New pumps and overhead and underground piping will be installed so that the product can be off-loaded from the railcars into the new tanks and so the product can be removed from the new tanks to the truck loading rack.

Modifications To The Existing Facility

1. The truck loading dock will be modified to increase the dispensing capacity so that tanker trucks may be filled more rapidly.

2. Four above ground storage tanks located along the north side of the property will be removed.

3. Tank #8107 will be drained and cleaned. It will be used as an overflow containment tank in case fire suppression water needs to be drained from other areas of the facility.

4. Tanks 8322 and 8321 will be taken out of service.

5. The piping and valves of the prover and manifold will be modified to allow product to be transferred between tanks.

Installation/Improvement of Fire Protection Equipment

1. A containment dike will be constructed around the new tanks, designed and sized according to the Uniform Fire Code Requirements. This dike is designed to contain the entire contents of the largest anticipated spill along with the required fire suppression water needed to suppress a fire from this flammable liquid spill.

2. A 10-inch water line will be connected to the existing 12-inch line located in 9th Street to supply fire protection water to the facility. This new line will extend along the east side of the new tanks where a fire hydrant and foam capable monitor nozzle will be installed.

3. The existing 6-inch "dry" fire line protecting the existing tanks will be converted to a "wet" line and will be looped to completely surround these tanks and the truck loading area.

4. A heated building will be constructed to house the foam proportioning system and pump along with the required supply of fire fighting foam.

5. Fixed foam chambers will be installed on each of the new tanks. These will be designed to supply foam at a density of 0.14 gallons per minute per square foot of surface area above the floating roofs. These chambers are designed to extinguish any fire occurring in the area above the floating roofs and below the fixed cone roofs of these tanks. The foam will be delivered by turning on the pump to the proportioning system and turning on a valve to the lines supplying the foam chambers.

6. Fixed foam makers will be installed along the perimeter of the new diked area and designed to supply foam at 0.1gpm/square foot over the entire surface of the diked area. This system is designed to extinguish any fire from a large flammable liquid spill in the diked area. This system will also utilize the foam proportioning system and will be activated manually by turning on the pump and opening a valve to the supply lines.

7. An automatic foam fire suppression system will be installed to protect the truck loading rack area. This system will be capable of being automatically activated by a combination UV/IR fire detection system, or manually activated by emergency pull stations. System activation will automatically supply foam to the foam nozzles using the foam proportioning system.

8. The existing diked areas will be protected by either fixed foam makers installed along the perimeters of the dikes or by modifying the existing monitor nozzles to make them foam capable. For either design, the foam will be supplied using the foam proportioning system and pump. The system will be manually activated by turning on the pump and opening a valve to the supply lines.

9. The existing monitor nozzles along the north side of 2nd Avenue will be utilized to provide cooling water to the new tanks. The new monitor nozzle to be located at the southeast

corner of the property will be used to provide cooling water to the new tanks if needed, or to protect the Munroe Supply building if exposure protection is necessary.

10. The new fire hydrant will be used to provide water for fire department pumpers as necessary for any exposure protection, for applying foam to small spills, and for boosting water pressure if necessary.

11. The existing monitor nozzle nearest the railcar staging area will be converted to a self-educting type capable of supplying foam or water to the railcar area. In addition, an off site public hydrant on the south west side of the rail car area will be equipped with a self educting nozzle to protect that portion of the railcar area.

12. Each new and existing monitor nozzle will be equipped with a riser with a gated 2 1/2" gated "Y" connection for supplementary hose streams.

13. The existing fire alarm system will be upgraded in conjunction with the installation of the new system so that separate and distinct signals for fire alarm, flow alarm, tamper and trouble will be transmitted to the central monitoring station.

14. Foam supplies will be stored on site in quantities adequate for an anticipated worst case fire scenario. In addition, replacement foam supplies will be available within 24 hours.

15. The two new tanks will be equipped with mechanically activated high level alarms, which will automatically shut down all railcar off loading pumps. These alarms will be equipped with redundant microswitches to ensure activation. In addition an audible alarm system will be added to the terminal equipment.

Remaining Concerns of the Grand Junction Fire Department

1. Risk Potential Evaluation: The Department has asked Conoco via telephone on March 6, 1996 to provide data concerning "Thermal Radiant Energy" estimations to existing exposures surrounding the Conoco property. The request is based on a worst case scenario which in our opinion would be an overfill/connection failure resulting to a "full surface fire of the secondary containment area." The request has not been met as of this date.

2. Firefighter access inside the secondary containment is a concern from a rescue safety standpoint. The minimum height of 12 feet of the secondary containment creates a barrier to safe rescue operations for the Department.

3. Proposed built-in fire protection systems provide for a single attempt at extinguishment of an incident. The restriction is due to the amount of foam storage on site. Grand Junction Fire Department does not have local sources to obtain adequate amounts of foam to mount a second attempt of a given incident. Delivery of back-up foam supplies from Denver would take a minimum of four hours to arrive. In addition, Grand Junction Fire Department is not equipped to manage a fire at this facility, if the built-in fire protection system fails for any reason.

4. Conoco has not submitted any information regarding the possibility of siting the facility at alternative locations within the Grand Junction Fire Department's jurisdiction.

5. Rail traffic at the 9th Street crossing is already a concern for emergency response. The proposed increase in future rail traffic will only serve to increase this potential.

6. The MSDS submitted by Conoco do not specifically address the issue of particulate fall-out of products on non-complete combustion. Particulate fall-out of products of non-complete combustion could have a detrimental effect to the general public and surrounding area.

Surrounding Traffic. Much of the concern from those in opposition to the project is traffic related, largely due to the perceived problem when vehicles are backed up at the railroad crossing. Conoco currently has 29 trucks per day that arrive, load, and depart from the existing tank facility. The proposed tanks are located on a site that was previously used by Viking Freight. According to estimates provided by Conoco, Viking had approximately 18 trucks come and go each day. The proposed number of trucks with the tank expansion project is 40 (an increase of 11 over existing). Thus, given the information from Conoco, the amount of truck traffic from this site will actually decrease from what existed when Viking Freight was in operation.

The City Public Works Traffic Division conducted a survey of this area within the last year to determine warrants for a traffic signal at the intersection of 9th Street and D Road. Traffic counts at two locations on 9th Street were 11,482 and 6,552 and on D Road 4,960 vehicles per day. It was determined that a signal was not warranted at this time. Certainly, the traffic generated by the Conoco site only minimally contributes to these counts.

The Traffic Division also examined the gaps in traffic available for the large tank trucks (60 to 70 feet in length) to enter traffic, making either left or right turns from 2nd Avenue onto 9th Street. For vehicles of this size and the slow acceleration rate of them, a gap of 11 seconds is needed. At the 2nd Avenue/9th Street intersection, gaps were timed at 14 seconds, sufficient for the trucks to enter traffic.

The greater concern perhaps with the truck traffic generated by the Conoco facility is the flammable nature of the product carried by the trucks. An increase in the number of trucks using the Conoco facility will cause some increase in the potential for an incident involving one of them, particularly with the relatively high traffic counts on the adjacent streets used by the trucks and the railroad crossing involved along the primary route (9th to Ute/Pitkin).

An improvement that could be made to improve safety along the routes of these trucks, is the turning radii on the corners of the 9th Street and Ute/Pitkin Avenue corridors. Recently, the turning radii on the southwest corners of 9th Street and Ute Avenue and 9th Street and Pitkin Avenue were upgraded to accommodate truck turning movements. However, the Traffic Division determined that the radius on the southeast corner of 9th Street and Pitkin Avenue for northbound trucks turning right from 9th Street to Pitkin Avenue should also be upgraded.

Railroad Traffic. Rail traffic has also been a point of concern for staff and others commenting on the proposed tank project. Currently, there are times when traffic on 9th Street is halted for a 5 to 15 minute duration while railcars are shifted at Conoco's tank terminal. Railcars are usually shifted or switched twice daily, although there have been occasions where as many as 5 switches occurred in a day. The City Fire Department questioned if Conoco could work with the railroad to improve scheduling. Conoco's response was that this had been looked into, however, there is only a narrow window of time to shift cars at the terminal without adversely impacting railcar handling at other facilities.

Conoco has provided some information regarding rail traffic relative to this proposal. They estimate that they currently receive 7.9 railcars per day and this is expected to increase to 11.5 railcars per day. Conoco has not indicated what impact this increase will have on the number and/or duration of unloading operations/gate closures required for the expanded facility. As stated in the Fire Department's remaining concerns, the greater concern is the closure of the rail crossing that blocks emergency access to the area. Thus, the number of gate closures and the duration is of greater concern which will likely increase due to an increase in the number of railcars servicing the operation.

On-Site Circulation. Currently, trucks entering the Conoco Tank Terminal turn from southbound or northbound 9th Street onto 2nd Avenue and proceed either to a staging area or directly to the loading area (depending on the number of trucks at the facility at one time). Trucks presently stage in the vacant area south of 2nd Avenue where the westerly new tank is to be located. If there are only a few trucks, they park parallel to 2nd Avenue. If these spaces are full, trucks enter the site from the alley south of the proposed new tanks and park perpendicular to 2nd Avenue, facing to the north. There are also two truck staging positions in the loading rack approach area on the north side of 2nd Avenue, west of the existing tanks. From the staging areas, the trucks proceed to the loading rack and, once loaded, exit the site from 2nd Avenue, turning north or south on 9th Street.

The proposed site circulation will operate somewhat differently due to the construction of the two new storage tanks. The plan indicates that trucks will still enter the site from 9th Street onto 2nd Avenue. Staging is to occur in the area north of the proposed tanks in four rows parallel to the street. Two of the rows are to be on Conoco's property south of 2nd Avenue and two are proposed to utilize approximately half (30 feet) of the 2nd Avenue right-of-way. The trucks are proposed to proceed from the staging area, to the loading rack, and exit the site as they currently do.

This proposed staging for westbound Conoco traffic in what is normally the eastbound direction of traffic is unacceptable. The 2nd Avenue crossing movements that occur from trucks entering the site, parking in the staging area, and then proceeding to the loading area are cause for many potential conflict points with both Conoco's own trucks exiting the site and with other traffic that uses the 2nd Avenue right-of-way, particularly that of Denning Lumber located west of the Conoco site. A minimum of four tractor-trailer trucks and twenty delivery trucks access Denning each day via 2nd Avenue.

The Conoco site plan does not illustrate how traffic circulation exiting the area from 2nd Avenue to 9th Street can safely operate. Also, the geometry of the plan is based on a 60-foot truck length, yet Conoco has suggested that trucks as large as 70 and perhaps 90 feet do utilize the facility. Conoco has not demonstrated that the on-site circulation can work for these larger vehicles.

There are some revisions to the site circulation that could be made that would reduce the number of conflict points (e.g entrance as proposed but exit only on the north end of the site with an "on-demand" signal (across from D Road). While such changes may alleviate some of the circulation concerns, there is still some concern with not only the size of the trucks doing this maneuvering but also the nature of the flammable materials contained within them.

Another outstanding question regarding the truck staging is justification for the number of staging positions required. One site plan shows 8 positions, another 6, and another up to 11 positions. The number of positions does not seem to correlate with the information provided by Conoco that suggests a total daily increase to be only 11 trucks. The most recent information from Conoco indicates that only 2 staging positions are expected to be needed.

Environmental Concerns. Staff received comments from organizations and review agencies regarding other environmental concerns, primarily air quality in terms of emissions and the potential for seepage if a spill incident occurred. The Mesa County Health Department stated that a control device for the emission of volatile organic compound (VOC) is required for this facility. With the proposed improvements, Conoco will be installing a control that will achieve 98% VOC destruction efficiency which is within the New Source Performance Standard requirements for such control devices.

To prevent subsoil contamination in the event of a leak, a geosynthetic clay liner will be placed under each of the proposed tanks. A 6-inch thick layer of sand will be placed atop the clay liner, inside the concrete ringwall foundation for the dike wall, and under the steel tank bottom. To detect leakage from the tank, PVC piping will be installed in the sand layer will be sloped to route product to the exterior of the tank. This piping will be checked periodically at the outlets for the presence of petroleum product.

FINDINGS OF REVIEW:

Based on the criteria used to evaluate a Conditional Use application per Section 4-8-1 of the Zoning and Development Code, staff makes the following findings regarding the criteria relevant to this project.

Compatible with Adjacent Uses. Although the technical safety concerns of the City Fire Department are satisfied with the current proposed plan, there are still overall public safety concerns with the proposed Conoco facility expansion that have not been thoroughly explored by either City staff or the petitioner. Therefore, this criterion cannot be wholly addressed at this time.

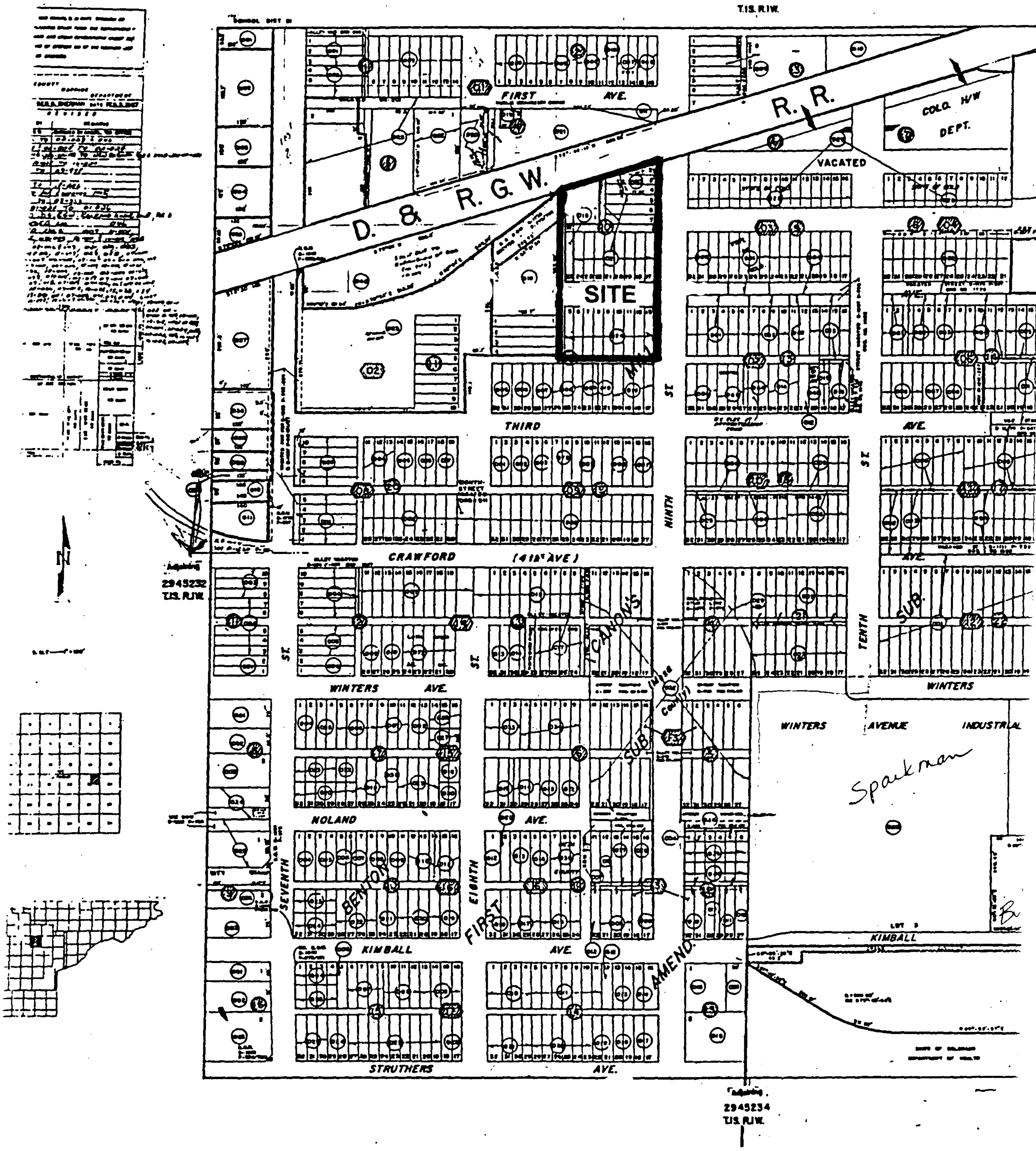
Sufficient Site Design Features. As discussed in the staff analysis, the vehicular circulation and the access to and from the site do not function safely or adequately for the size of trucks utilizing the facility.

Adequate Public Services Available. The public services most applicable to this project are water and fire protection which have been adequately addressed as discussed in the staff analysis. However, Planning Commission felt that the provision for back-up foam supplies could be considered a part of this and that this was not adequately available for the proposal.

Use Conforms to Adopted Guidelines and Site Development Requirements. Related to the site design features criteria, the proposed site development does not meet requirements for adequate parking (staging) and loading routes.

PLANNING COMMISSION ACTION (3/12/96): Denial of Conditional Use Permit (6-0)

Property lines in Red
Alleyways in Yellow



STAFF REVIEW

FILE: VR 95-176

DATE: March 8, 1996

REQUEST: Conditional Use Permit - Conoco Bulk Storage Facility

LOCATION: 631 South 9th Street

APPLICANT: Conoco, Inc.

STAFF: Kristen Ashbeck

PC 3/12/96
Denied due to
reasons in discussion
6-0

EXISTING LAND USE: Tank Terminal Facility

PROPOSED LAND USE: Same, Expanded

SURROUNDING LAND USE:
NORTH: Railroad Right-of-Way
SOUTH: Commercial (Munro Supply & Outdoor Storage for Denning Lumber)
EAST: Office/Commercial (CDOT Office/Shops, American Linen, Retail)
WEST: Commercial - Outdoor Storage (Denning Lumber)

EXISTING ZONING: Heavy Industrial (I-2)

SURROUNDING ZONING:
NORTH: I-2
SOUTH: I-2
EAST: I-2 and Public Zone (PZ)
WEST: I-2

STAFF ANALYSIS:

Summary of Project. Conoco, Inc. is proposing to expand its bulk petroleum storage facility located at 631 S. 9th Street. Currently, Conoco has 12 tanks at the facility which have the holding capacity of approximately 1 million gallons of five different petroleum products. Conoco proposes to construct two new storage tanks across 2nd Avenue and south of the existing facility. The combined capacity of the new tanks is 2.3 million gallons. Once the new tanks are constructed, some of the older existing tanks will either be demolished or removed from service.

In addition to the new tank construction and the necessary safety improvements required for them, Conoco is proposing to make modifications to the existing facilities in order to improve railcar unloading rates, truck loading rates and safety features of the site. The new construction and modifications are further described in the Fire Code Issues portion of the staff report.

Relationship to Comprehensive Plan. There is no comprehensive plan for this area of the City however, the Growth Plan is in progress. The draft Growth Plan indicates industrial uses for this area.

Fire Code and Safety Issues. Throughout the review of this proposal, fire code and safety issues have been the primary concern in order to ensure compliance with the Uniform Fire Code and other applicable regulations. The outline below was provided by the Grand Junction Fire Department. It summarizes the main features of the proposed new construction, modifications and fire protection elements of this proposal. Conoco has agreed to provide all of the improvements listed below and, as such, the facility will meet all applicable regulations. Therefore, from a Fire Code standpoint, the net result will be a safer facility than what currently exists. However, the Grand Junction Fire Department is continuing to review other overall public safety concerns as listed in the following summary.

New Construction

1. As previously noted, two new flammable liquid storage tanks will be constructed. Tank #8112 will be 67 feet in diameter, 48 feet high, and store 30,000 barrels of unleaded gasoline (1 barrel=42 gallons). Tank #8113 will be 67 feet in diameter, 40 feet high, and store 25,000 barrels of diesel fuel. Construction of new tanks, piping, cathodic protection and spacing of tanks will be according to the Uniform Fire Code and applicable national standards.

2. New pumps and overhead and underground piping will be installed so that the product can be off-loaded from the railcars into the new tanks and so the product can be removed from the new tanks to the truck loading rack.

Modifications To The Existing Facility

1. The truck loading dock will be modified to increase the dispensing capacity so that tanker trucks may be filled more rapidly.

2. Four above ground storage tanks located along the north side of the property will be removed.

3. Tank #8107 will be drained and cleaned. It will be used as an overflow containment tank in case fire suppression water needs to be drained from other areas of the facility.

4. Tanks 8322 and 8321 will be taken out of service.

5. The piping and valves of the prover and manifold will be modified to allow product to be transferred between tanks.

Installation/Improvement of Fire Protection Equipment

1. A containment dike will be constructed around the new tanks, designed and sized according to the Uniform Fire Code Requirements. This dike is designed to contain the entire contents of the largest anticipated spill along with the required fire suppression water needed to suppress a fire from this flammable liquid spill.

2. A 10-inch water line will be connected to the existing 12-inch line located in 9th Street to supply fire protection water to the facility. This new line will extend along the east side of the new tanks where a fire hydrant and foam capable monitor nozzle will be installed.

3. The existing 6-inch "dry" fire line protecting the existing tanks will be converted to a "wet" line and will be looped to completely surround these tanks and the truck loading area.

4. A heated building will be constructed to house the foam proportioning system and pump along with the required supply of fire fighting foam.

5. Fixed foam chambers will be installed on each of the new tanks. These will be designed to supply foam at a density of 0.14 gallons per minute per square foot of surface area above the floating roofs. These chambers are designed to extinguish any fire occurring in the area above the floating roofs and below the fixed cone roofs of these tanks. The foam will be delivered by turning on the pump to the proportioning system and turning on a valve to the lines supplying the foam chambers.

6. Fixed foam makers will be installed along the perimeter of the new diked area and designed to supply foam at 0.1gpm/square foot over the entire surface of the diked area. This system is designed to extinguish any fire from a large flammable liquid spill in the diked area. This system will also utilize the foam proportioning system and will be activated manually by turning on the pump and opening a valve to the supply lines.

7. An automatic foam fire suppression system will be installed to protect the truck loading rack area. This system will be capable of being automatically activated by a combination UV/IR fire detection system, or manually activated by emergency pull stations. System activation will automatically supply foam to the foam nozzles using the foam proportioning system.

8. The existing diked areas will be protected by either fixed foam makers installed along the perimeters of the dikes or by modifying the existing monitor nozzles to make them foam capable. For either design, the foam will be supplied using the foam proportioning system and pump. The system will be manually activated by turning on the pump and opening a valve to the supply lines.

9. The existing monitor nozzles along the north side of 2nd Avenue will be utilized to provide cooling water to the new tanks. The new monitor nozzle to be located at the southeast

corner of the property will be used to provide cooling water to the new tanks if needed, or to protect the Munroe Supply building if exposure protection is necessary.

10. The new fire hydrant will be used to provide water for fire department pumpers as necessary for any exposure protection, for applying foam to small spills, and for boosting water pressure if necessary.

11. The existing monitor nozzle nearest the railcar staging area will be converted to a self-educting type capable of supplying foam or water to the railcar area. In addition, an off site public hydrant on the south west side of the rail car area will be equipped with a self educting nozzle to protect that portion of the railcar area.

12. Each new and existing monitor nozzle will be equipped with a riser with a gated 2 1/2" gated "Y" connection for supplementary hose streams.

13. The existing fire alarm system will be upgraded in conjunction with the installation of the new system so that separate and distinct signals for fire alarm, flow alarm, tamper and trouble will be transmitted to the central monitoring station.

14. Foam supplies will be stored on site in quantities adequate for an anticipated worst case fire scenario. In addition, replacement foam supplies will be available within 24 hours.

15. The two new tanks will be equipped with mechanically activated high level alarms, which will automatically shut down all railcar off loading pumps. These alarms will be equipped with redundant microswitches to ensure activation. In addition an audible alarm system will be added to the terminal equipment.

Remaining Concerns of the Grand Junction Fire Department

1. Risk Potential Evaluation: The Department has asked Conoco via telephone on March 6, 1996 to provide data concerning "Thermal Radiant Energy" estimations to existing exposures surrounding the Conoco property. The request is based on a worst case scenario which in our opinion would be an overfill/connection failure resulting to a "full surface fire of the secondary containment area." The request has not been met as of this date.

2. Firefighter access inside the secondary containment is a concern from a rescue safety standpoint. The height of the secondary containment creates a barrier to safe rescue operations for the Department.

3. Proposed built-in fire protection systems provide for a single attempt at extinguishment of an incident. The restriction is due to the amount of foam storage on site. Grand Junction Fire Department does not have local sources to obtain adequate amounts of foam to mount a second attempt of a given incident. In addition, Grand Junction Fire Department is not equipped to manage a fire at this facility, if the built-in fire protection system fails for any reason.

4. Grand Junction Fire Department has not had time to adequately review any alternate sites/feasible locations within our jurisdiction.

5. Rail traffic at the 9th Street crossing is a concern for emergency response. Information on the Conoco expansion with regard to impact on rail traffic is unavailable.

6. Conoco submitted three alternative plans on March 1, 1996. The Fire Department has not had adequate time to review the impact of the plans. Two of the plans show changes to the secondary containment walls.

7. Particulate fall-out of products of non-complete combustion could have a detrimental effect to the general public and surrounding area.

Surrounding Traffic. Much of the concern from those in opposition to the project is traffic related, largely due to the perceived problem when vehicles are backed up at the railroad crossing. Conoco currently has 29 trucks per day that arrive, load, and depart from the existing tank facility. The proposed tanks are located on a site that was previously used by Viking Freight. According to estimates provided by Conoco, Viking had approximately 18 trucks come and go each day. The proposed number of trucks with the tank expansion project is 40 (an increase of 11 over existing). Thus, given the information from Conoco, the amount of truck traffic from this site will actually decrease from what existed when Viking Freight was in operation.

The City Public Works Traffic Division conducted a survey of this area within the last year to determine warrants for a traffic signal at the intersection of 9th Street and D Road. Traffic counts at two locations on 9th Street were 11,482 and 6,552 and on D Road 4,960 vehicles per day. It was determined that a signal was not warranted at this time. Certainly, the traffic generated by the Conoco site only minimally contributes to these counts.

The Traffic Division also examined the gaps in traffic available for the large tank trucks (60 to 70 feet in length) to enter traffic, making either left or right turns from 2nd Avenue onto 9th Street. For vehicles of this size and the slow acceleration rate of them, a gap of 11 seconds is needed. At the 2nd Avenue/9th Street intersection, gaps were timed at 14 seconds, sufficient for the trucks to enter traffic.

The greater concern perhaps with the truck traffic generated by the Conoco facility is the flammable nature of the product carried by the trucks. An increase in the number of trucks using the Conoco facility will cause some increase in the potential for an incident involving one of them, particularly with the relatively high traffic counts on the adjacent streets used by the trucks and the railroad crossing involved along the primary route (9th to Ute/Pitkin).

An improvement that could be made to improve safety along the routes of these trucks, is the turning radii on the corners of the 9th Street and Ute/Pitkin Avenue corridors. Recently, the turning radii on the southwest corners of 9th Street and Ute Avenue and 9th Street and Pitkin Avenue were upgraded to accommodate truck turning movements. However, the Traffic Division

determined that the radius on the southeast corner of 9th Street and Pitkin Avenue for northbound trucks turning right from 9th Street to Pitkin Avenue should also be upgraded.

Railroad Traffic. Rail traffic has also been a point of concern for staff and others commenting on the proposed tank project. Currently, there are times when traffic on 9th Street is halted for a 5 to 15 minute duration while railcars are shifted at Conoco's tank terminal. Railcars are usually shifted or switched twice daily, although there have been occasions where as many as 5 switches occurred in a day. The City Fire Department questioned if Conoco could work with the railroad to improve scheduling. Conoco's response was that this had been looked into, however, there is only a narrow window of time to shift cars at the terminal without adversely impacting railcar handling at other facilities.

Conoco has not specifically answered the question as to whether or not the number of rail tank cars coming and going from the facility would increase, decrease or remain the same as the existing operation. An increase in the number of railcars would affect the surrounding traffic in the area due to the potential need to close the rail crossing on 9th Street more than presently occurs.

On-Site Circulation. Currently, trucks entering the Conoco Tank Terminal turn from southbound or northbound 9th Street onto 2nd Avenue and proceed either to a staging area or directly to the loading area (depending on the number of trucks at the facility at one time). Trucks presently stage in the vacant area south of 2nd Avenue where the westerly new tank is to be located. If there are only a few trucks, they park parallel to 2nd Avenue. If these spaces are full, trucks enter the site from the alley south of the proposed new tanks and park perpendicular to 2nd Avenue, facing to the north. There are also two truck staging positions in the loading rack approach area on the north side of 2nd Avenue, west of the existing tanks. From the staging areas, the trucks proceed to the loading rack and, once loaded, exit the site from 2nd Avenue, turning north or south on 9th Street.

The proposed site circulation will operate somewhat differently due to the construction of the two new storage tanks. The plan indicates that trucks will still enter the site from 9th Street onto 2nd Avenue. Staging is to occur in the area north of the proposed tanks in four rows parallel to the street. Two of the rows are to be on Conoco's property south of 2nd Avenue and two are proposed to utilize approximately half (30 feet) of the 2nd Avenue right-of-way. The trucks are proposed to proceed from the staging area, to the loading rack, and exit the site as they currently do.

This proposed staging for westbound Conoco traffic in what is normally the eastbound direction of traffic is unacceptable. The 2nd Avenue crossing movements that occur from trucks entering the site, parking in the staging area, and then proceeding to the loading area are cause for many potential conflict points with both Conoco's own trucks exiting the site and with other traffic that uses the 2nd Avenue right-of-way, particularly that of Denning Lumber located west of the Conoco site. A minimum of four tractor-trailer trucks and twenty delivery trucks access Denning each day via 2nd Avenue.

The Conoco site plan does not illustrate how traffic circulation exiting the area from 2nd Avenue to 9th Street can safely operate. Also, the geometry of the plan is based on a 60-foot truck length, yet Conoco has suggested that trucks as large as 70 and perhaps 90 feet do utilize the facility. Conoco has not demonstrated that the on-site circulation can work for these larger vehicles. Again, part of the concern is not only the size of the trucks doing this maneuvering but also the nature of the flammable materials contained within them.

Another outstanding question regarding the truck staging is justification for the number of staging positions required. One site plan shows 8 positions, another 6, and another up to 11 positions. The number of positions does not seem to correlate with the information provided by Conoco that suggests a total daily increase to be only 11 trucks.

Environmental Concerns. Staff received comments from organizations and review agencies regarding other environmental concerns, primarily air quality in terms of emissions and the potential for seepage if a spill incident occurred. The Mesa County Health Department stated that a control device for the emission of volatile organic compound (VOC) is required for this facility. With the proposed improvements, Conoco will be installing a control that will achieve 98% VOC destruction efficiency which is within the New Source Performance Standard requirements for such control devices.

To prevent subsoil contamination in the event of a leak, a geosynthetic clay liner will be placed under each of the proposed tanks. A 6-inch thick layer of sand will be placed atop the clay liner, inside the concrete ringwall foundation for the dike wall, and under the steel tank bottom. To detect leakage from the tank, PVC piping will be installed in the sand layer will be sloped to route product to the exterior of the tank. This piping will be checked periodically at the outlets for the presence of petroleum product.

FINDINGS OF REVIEW:

Based on the criteria used to evaluate a Conditional Use application per Section 4-8-1 of the Zoning and Development Code, staff makes the following findings regarding the criteria relevant to this project.

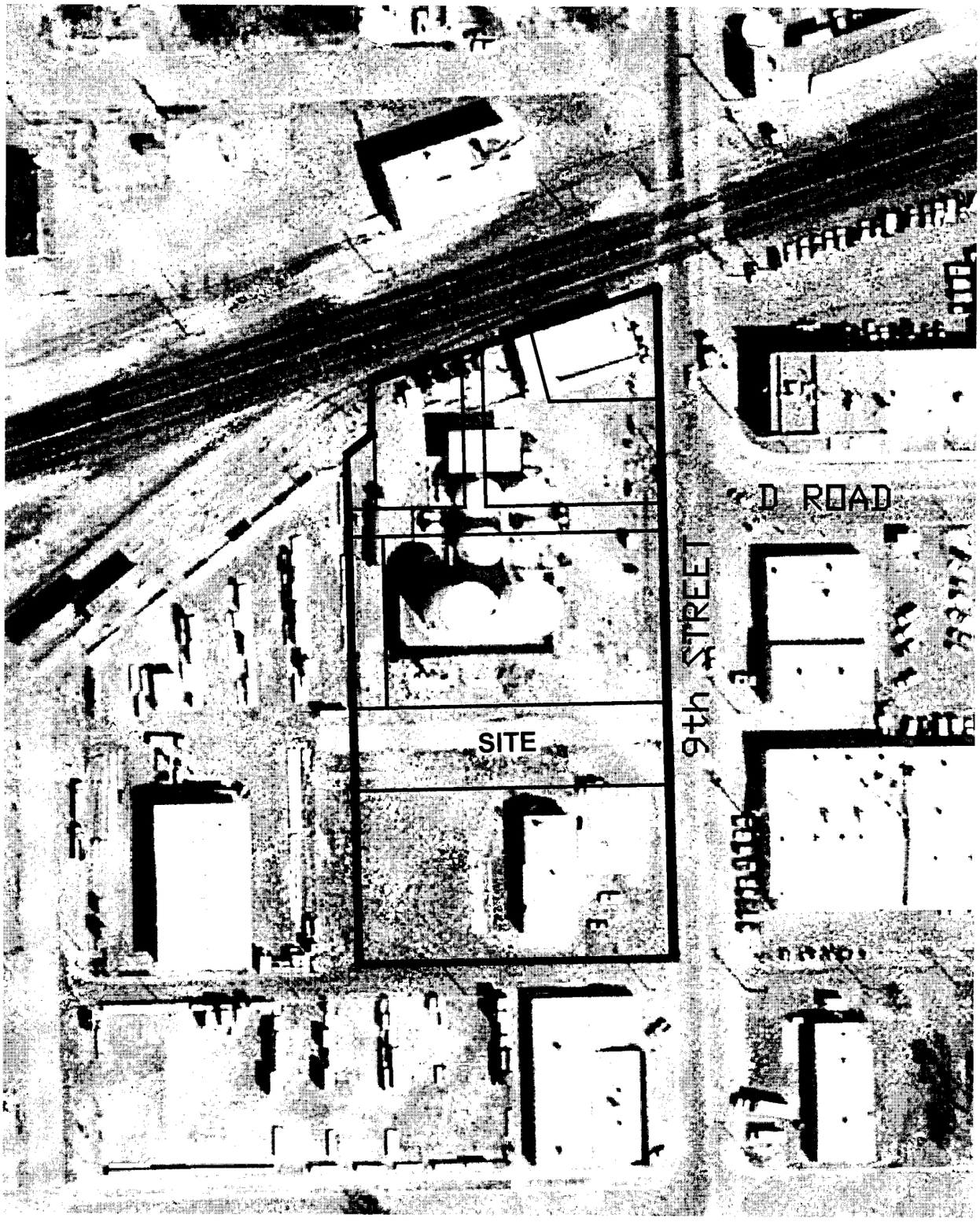
Compatible with Adjacent Uses. Although the technical safety concerns of the City Fire Department are satisfied with the current proposed plan, there are still overall public safety concerns with the proposed Conoco facility expansion that have not been thoroughly explored by either City staff or the petitioner. Therefore, this criterion cannot be wholly addressed at this time.

Sufficient Site Design Features. As discussed in the staff analysis, the vehicular circulation and the access to and from the site do not function safely or adequately for the size of trucks utilizing the facility.

Adequate Public Services Available. The public services most applicable to this project are water and fire protection which have been adequately addressed as discussed in the staff analysis.

Use Conforms to Adopted Guidelines and Site Development Requirements. Related to the site design features criteria, the proposed site development does not meet requirements for adequate parking (staging) and loading routes.

STAFF RECOMMENDATION: To Be Provided



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CUP 95-176 CONDITIONAL USE PERMIT
CONOCO FUEL STORAGE TANKS

Request for Vacation of Rights-of-Way and Conditional Use Permit

Conoco Inc.'s Grand Junction Terminal Expansion Proposal
File #VR-95-176

Minutes of January 25, 1996 Meeting

On January 25, 1996, a meeting was held in the offices of the Grand Junction, Colorado Fire Department to discuss issues related to Conoco's permit application for new tank construction. The following parties were in attendance:

Ron DeVille	Conoco Inc. - Regional Engineering
Hank Masterson	Gr. Jct. Fire Department
John Shaver	City of Gr. Jct.
Jim Bright	Gr. Jct. Fire Department
Drew Reekie	Gr. Jct. Fire Department
Kristen Ashbeck	Gr. Jct. Community Development Dept.
Darrel Vanhooser	Conoco Inc. - Senior Agent
Michelle Ashton	Conoco Inc. - Project Engineer
Tom Settle	Conoco Inc. - Gr. Jct. Facility Manager
Rick Beaty	Gr. Jct. Fire Department
Bob Loveless	Conoco Inc. - Safety Director, Denver Refinery
Mark Johnke	Rooney Engineering

The discussion focused on the review comments presented in January 18, 1996 correspondence to Conoco from the various city agencies. A summary of the conversations is presented below.

Introductory Remarks

Conoco presented an overview of the proposed terminal modifications and expansion, describing the major components involved in each of these two phases of the project. Fire department officials confirmed that both phases will require permits prior to beginning construction. A written summary of the project phases was requested by the fire department.

To permit the truck and rail rack modifications (Phase 1), detailed drawings and specifications of changes to the truck and rail rack, including the new vapor combustion unit and the truck rack fire system, will be submitted to the fire department by Conoco. For the construction of the new tanks (Phase 2), a Conditional Use Permit (CUP) must first be obtained, followed

by a specific fire department permit. The CUP involves conducting a public hearing and obtaining the necessary building permit (A separate document attached to these meeting minutes outlines the information that Conoco understands to be necessary for the CUP. This information will be submitted to the city by February 20, 1996 to allow time for review prior to the March 5 public hearing).

Fire suppression system equipment in the truck loading rack area (i.e. sprinklers and piping) should be included with the rack modifications or Phase I of the project. Since an integrated truck rack/tank/diked area system is desired, the central foam and water system would then be installed concurrently with new tank construction (Phase 2).

The city suggested that Conoco evaluate the existing and potential blast and fire zones of the facility relative to 24 CFR Part 51, Subpart C of the Code of Federal Regulations, entitled, "Siting of HUD-Assisted Projects Near Hazardous Operations Handling Petroleum Products or Chemicals of an Explosive or Flammable Nature".

Community Development Department

1. Additional Review Comments

   Conoco reported that meetings had been conducted on January 24 with representatives of the Downtown Development Authority and the Concerned Citizens Resource Association (CCRA). A written response to the CCRA letter dated January 6, 1996 will also be prepared by Conoco.

2. Landscaping Plan

   The landscaping plan will be provided to city officials as a component of Conoco's final information package to accompany the Conditional Use Permit application.

3. Stormwater Management Plan

   A letter from Mike Miller of Conoco to Michelle Ashton dated January 15, 1996 was distributed. The letter summarized recent discussions between Conoco, Grand Junction City Development, and the Colorado Department of Health and Environment. These parties have agreed that no stormwater management plan will be necessary for the construction of the new tanks.

4. Truck Staging Area

Conoco described why staging must be located along the south, rather than the north, side of 2nd Avenue in order to provide sufficient turning space for trucks exiting the staging area and entering the loading rack. The south-side location will not conflict with the necessary turning radius of trucks entering 2nd Avenue from 9th Street.

5. Open Space Fees

No additional discussion.

City Development Engineer

1. Stormwater Management Plan

Discussed previously, see comments under Item 3 above.

2. Truck Traffic

Concerns about locating the staging area on the south side of 2nd Avenue were discussed previously. Those remarks are summarized under Item 4 above.

An estimate of the truck traffic into the Denning Lumber facility along 2nd Avenue was requested. Conoco will pursue written comments from Denning on this topic.

Several general traffic concerns in the area around the terminal were discussed. The first of these concerns addressed the activity level of trains utilizing the track crossing at 9th Street. Apparently, there are times when traffic is halted for a 5 to 15 minute duration while railcars are shifted at the terminal. Railcars are usually shifted or switched twice daily, although there have been occasions where as many as 5 switches occurred in a day. The fire department questioned if Conoco could work with the railroad to improve scheduling. Conoco replied that this area had been looked into; however, there is only a narrow window of time to shift cars at the terminal without adversely impacting railcar handling at other facilities.

Conoco noted that railcar deliveries to the terminal are only a small part of the total rail traffic in the area.

The city is continuing to study the alternatives for directing truck traffic. Conoco was asked if it would be feasible to schedule trucks through the terminal. The response indicated that scheduling would likely not be a workable solution for the trucking companies.

The fire department expressed concern that the turning radius onto Ute and Pitkin from 9th Street is not sufficient to enable trucks to stay in the proper lane. The city will continue to evaluate this concern as part of a broader review of traffic flow in the area.

Mesa County Health Department

On January 22, 1996, Jay Christopher of Conoco submitted correspondence to Perry Buda (Mesa County Health Department) and copied Kristen Ashbeck (Grand Junction Community Development). The correspondence explained that the proposed terminal modifications would reduce the current level of emissions by approximately 75 percent.

Conoco requested that Community Development contact Perry Buda to confirm that the Health Department is in agreement with the explanation provided in the Conoco correspondence.

Concerned Citizens Resource Association

See comments under Item 1, Community Development Department.

Mesa County Local Emergency Planning Committee (LEPC)

Conoco will issue a written response to the January 3, 1996 correspondence submitted by the Mesa County LEPC addressing the proposed expansion.

Grand Junction Fire Department

1. Terminal Master Plan and Drawings

It was agreed that Conoco would not be required to state in writing that no further expansion of the terminal would be necessary for the

next 20 years. Conoco agreed that fire department review of any future terminal modifications or expansions will be mandatory. Additionally, the city may elect to include a provision in the Conditional Use Permit stipulating that a public hearing will be required for future expansions at the site.

Perspective drawings of the terminal will still be required, primarily to serve as a visual aid during the review by city planning personnel. Conoco will provide two (2) perspective renderings of the terminal as viewed from 9th Street (i.e. from the northeast and southeast corners of the site). The renderings are to include the new tanks as well as the 2-bay loading rack mentioned but not yet planned for by Conoco.

The fire department requested that Conoco indicate the locations of all relevant aboveground or buried sump tanks on the terminal site plan.

2. Flow Test

Cooling water requirements at the terminal were discussed, with the fire department initially reducing the necessary water capacity to 5250 gpm (corresponding to 4 monitors at 500 gpm, 2 additional monitors at 500 gpm but having the capacity to reach 750 gpm, and 50 percent back-up supply). The fire department explained its concern that 6 monitors may be necessary just to cover the area occupied by the new tanks. Conoco responded that 4 monitors could likely cover the area, assuming that sufficient water pressure is available to the site. The fire department replied that 4 monitors would be acceptable, provided that full area coverage was shown and that each monitor would be capable of delivering 500 gpm (with an ultimate capability of 750 gpm). Site fire water requirements could then be reduced proportionately to approximately 3000 gpm.

The fire department stated that a preliminary test of the available fire water had been conducted. The test indicated 104 psi of static pressure and 20 psi of residual pressure when flowing water at 11,000 gpm. However, the fire department will conduct the flow test again to confirm the residual pressure available at the required 3000 gpm flow to the terminal.

Ground-level monitors were approved to protect the area encompassed by and adjacent to the new tanks.

The fire department commented that portable units to provide site fire protection were not preferred. Direct connection of the existing dry

fire line to the city fire water supply was requested by the fire department.

The fire department requested that the northwest monitor on the existing dry system be adapted, including relocation or an additional monitor if necessary, to provide fire protection to the railcar siding. In addition, the fire department will investigate the ownership and capacity of the existing hydrant located at the west end of the rail siding on property believed to be owned by Denning Lumber.

3. Looped Fire Line

The fire department requires the installation of a looped fire water line around the new tanks.

4. Supplementary and Cooling Water

As an alternative to on-site hydrants, Conoco suggested a 2-1/2" gated "Y" connection within each riser-configured fire monitor, to supply the means for portable hose connections. The fire department was agreeable to this approach.

The need for exposure protection in the event of a fire in the area of the new tanks would be limited primarily to the Monroe Pump building or any trucks abandoned in the staging area. In addition, it may be necessary in the event of a fire to apply cooling water to the tank foam chambers.

5. Fire Department Connections

If adequate water pressure to the site is confirmed by the upcoming flow test, pressurizing connections for the fire water system would not be required.

6. Foam Supplies

Conoco provided literature about "cold foam", a product that can be applied in temperatures as low as minus 20 degrees F. The fire department agreed that cold foam could serve as a potential alternative to constructing a heated building for the foam tank and proportioning equipment.

The fire department stated that a central foam supply would be desirable, equipped with valves and manifolding to direct foam solution

to either the storage tanks, fire monitors or the truck rack. It may not be feasible to supply the monitors from a fixed foam tank, considering their dual use as a source of a cooling water application. The fire department asked Conoco to investigate supplying foam to the monitors from a fixed source but expressed willingness to accept portable foam supplies and self-educting monitors as an alternative. Portable supplies would likely consist of 55-gal. drums of foam concentrate.

With respect to the volume of foam required to be maintained on site, the tank application rate was discussed. Conoco stated that 0.10 gpm/sq. ft. is sufficient because no foam is lost in-transit from the foam chamber to the liquid surface. The fire department replied that the 0.20 gpm/sq. ft. application rate was specified for tanks at the Diamond Shamrock Colorado Springs terminal. The fire department will contact Colorado Springs officials to further discuss the rationale for the higher tank application rate.

Conoco outlined the current supplies of foam stored at the Denver refinery, plus those maintained by another Denver refiner, and the access to 24-hour replenishment of foam directly from the manufacturer. The fire department indicated that these arrangements would be acceptable to satisfy the Grand Junction back-up requirements. It was requested that Conoco detail in writing the current back-up foam supply arrangements.

The fire department stated that selection of the worst-case, dike-area fire scenario, and the resulting higher foam supplies required, is warranted because no other foam inventories have been identified in the area. It was suggested that Conoco contact other potential foam users, such as the railroad, the airport and the Fruita refinery, to determine if a consortium approach to area foam supplies may be feasible.

7. Foam Chambers

In the event that cooling water application becomes necessary, tank foam chambers should be in a direct line-of-sight from the monitors and should be positioned equidistant between adjacent shell and/or roof vents. Foam chambers are to be of welded construction.

To verify that tipping or sinking concerns for the internal floating roofs (IFR's) will be mitigated, Conoco will provide documentation and

specifications illustrating that the tank IFR's will be constructed in accordance with API Standard 650 and NFPA 30.

8. Subsurface Injection

Conoco described the disadvantages of utilizing subsurface injection techniques for fire suppression on tanks equipped with IFR's. In response, the fire department agreed to drop the requirement for subsurface injection on the new tanks, provided that foam monitors have direct line-of-sight access to shell vents. The monitors would serve as back-up fire suppression for the tanks.

9. Overflow Protection

The fire department requested that Conoco quantify total non-utilized product capacity at the terminal, including the volume in Tank 8107 plus the combined spare capacity in all other terminal tanks (i.e. that volume above the level at which the high tank alarms are activated).

The fire department asked that Conoco identify the pump back capability in transferring product from Tank 8107, or other tanks, to the truck loading rack. The feasibility of loading evacuated product onto railcars was also discussed, although Conoco stated that this procedure would create significant operational difficulties and would require additional piping and valves.

10. Emergency Shutdown

Conoco described why the relatively slow, manned tank filling operation at the Grand Junction terminal differs substantially from the manner in which tanks are filled at most terminals. As a result, justification for dual high level alarms does not exist to the same degree at Grand Junction. The fire department questioned Conoco on the details of verifying tank levels and volumes. Agreement was reached that dual alarms would not be necessary; however, Conoco will add redundant microswitches to the level alarms for the new tanks and that the alarms will be made audible.

11. Truck Rack Spill Containment

Conoco indicated its belief that a 9000 gal. tank truck could not load to capacity without exceeding road weight limitations. In addition, the cargo area of each truck is subdivided into as many as 5 separate compartments. As a result, all compartments would have to be

breached, and all in a manner that would allow the release of the full compartment volume, in order to spill the entire contents of a truck. The fire department agreed that the proposed 11,600 gal. containment capacity of the truck rack area would be sufficient.

The fire department reiterated its request that location and other general information be provided for the terminal sump tanks.

12. API Oil/Water Separator

No additional discussions.

13. Railcar Spill Containment

Conoco advised the fire department that the diked area around the railcar siding has the capacity to contain approximately 71,000 gallons of liquid in the event of a spill. Conoco will provide survey information and calculations verifying the capacity of the rail siding diked area.

14. Railcar Emergency Evacuation

Conoco stated that earlier information provided to the fire department had been incorrect. There is presently no response plan covering railcar emergency evacuation procedures. Conoco will assemble notification contacts and procedures to address the issue of railcar evacuation.

15. Product Transfer

Conoco agreed to provide information illustrating the piping and equipment that would be utilized to transfer product among the various terminal tanks in the event of an emergency.

16. Driver Training

No additional discussions.

17. Truck Rack Fire Suppression

Conoco explained that the truck rack fire suppression system design will be revised. Automatic foam solution deluge in the event of a fire, and not water, will now be the basis of design. The improved reliability of detection devices has virtually eliminated the possibility of false alarms.

18. Overflow Containment

Tank 8107 would be utilized to contain either fire water overflow or evacuated product. See additional comments under Item 9 above.

19. Plans and Specifications

See comments in the Introductory Remarks section.

20. Electrical Equipment

No additional discussions.

21. Fire System Alarm Wiring

The fire department confirmed its reading of the National Electric Code, which states that low voltage communications circuitry must be located in a separate conduit from high voltage power cable. Wiring for the fire system alarms can be installed in the same conduit as other terminal low voltage communications cables.

22. Fire Alarm Monitoring

Currently, the fire department does not receive distinguishable signals from the Conoco terminal. Separate alarms are desired for tamper, trouble, fire and flow indications. Conoco will contact the fire department to further discuss the specifics of the desired alarm system. The fire department stated that the targeted system is similar to those installed recently for other facilities in the area.

23. Truck Traffic Routes

See previous comments under the City Development Engineer section.

24. Fire Flow Calculations

Discussed previously in Item 4 above.

25. Stormwater Management Plan

See comments under Community Development Department, Item 3.

26. Railcar Off-Loading Modifications

Discussed previously in Introductory Remarks.

27. Vapor Combustion Unit

Discussed previously in Introductory Remarks.

28. Terminal Equipment and Operations

Conoco will provide information on the existing fire suppression equipment, tank volumes, tank contents, etc.

CONOCO INC.

Grand Junction Products Loading Terminal Expansion

Phase 2 - New Tank Construction

Contents - Conditional Use Permit Review Package

Drawings:

1. Site plan showing proposed fire system, overfill tanks, landscaping etc.
2. Isometric piping drawing of existing facility
3. Perspective drawings
4. Survey of railcar containment

Written Summary:

1. General description of project
   - New tanks, containment structure, piping, cathodic protection, etc.
   - Spacing of new tanks
   - Specifications, manufacturer's info for tank internal floating roofs
   - New tank secondary containment capacity
   - Tank demolition, inspection and changes-of-service
   - Sequence of construction activities
   - Truck traffic anticipated

2. Assurance statements
   - All proposed future modifications or expansions will receive fire department review
   - Conoco will advise trucks to use required routes

3. Description of planned fire suppression system
   - New system for tank dike, new tanks and truck rack
   - Conversion of existing dry system to wet
   - Calculations showing foam quantity required
   - Description of backup foam capabilities
   - Supplementary hose streams
   - Cooling water coverages, fire dept. connections

4. Containment and overflow
   - Size and contents of existing tanks
   - Spare containment capacity above high tank levels
   - Audible high level alarms with dual microswitches
   - Product transfer capabilities
   - Tank 8107 pump-out capabilities (fixed pump)

5. Operating and safety features of existing facility
   - Sizes, contents of existing tanks
   - Tank overfill protection
   - Capacity of existing secondary containment
   - Existing tank spacing
   - Existing fire equipment
   - Railcar evacuation procedures

ROONEY
Engineering, Inc.

A West Hazmat Company

February 19, 1996

Ms. Kristen Ashbeck
Community Development Department
250 North 5th Street
Grand Junction, CO 81501

Re: Proposed Conoco Terminal Expansion (File #VR-95-176) - Conditional Use Permit Supplemental Information

Dear Ms. Ashbeck:

On February 14, 1996, Rooney Engineering forwarded preliminary information regarding the referenced Conditional Use Permit (CUP) application filed by Conoco. To further complete that preliminary submittal, attached please find two (2) copies of each of the following:

- A revision to Section 1.9 (Anticipated Truck Traffic) of the written summary, clarifying that the number of trucks utilizing the terminal is forecast to grow to 40 per day.
- Preliminary landscaping plan (Please note that a more-detailed assessment of the Conoco property line location along 9th Street has shown that Conoco's fence is not positioned 10' back from the property line, as previously believed. Consequently, space is not available for landscaping outside the fence along 9th Street.).
- Three (3) of the required six (6) perspective renderings of the terminal (black and white copies - final copies to be in color).
- Plan and section views of the railcar containment area, including capacity calculations.

Later this week, we will furnish two (2) complete sets of the entire package of supplemental CUP information. At that time, you will receive the full six (6) color perspective renderings of the terminal. In addition, Section 1.10 will be added to the written summary to discuss the content of 24 CFR Part 51, Subpart C (Siting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature) as it relates to the blast and fire zones for the Conoco terminal.

12201 East Arapahoe Rd., Suite C10 • Englewood, Colorado 80112 • (303) 792-5911 • FAX (303) 792-0227

Thank you for the assistance in compiling the necessary CUP information. Please direct any comments or questions to my attention.

Sincerely,

Mark B. Johnke, P.E.
Project Manager

MBJ:jh

enc.

cc: Michelle Ashton, Conoco Inc.
Ron DeVille, Conoco Inc.
95254
Reading

12201 East Arapahoe Rd., Suite C10 • Englewood, Colorado 80112 • (303) 792-5911 • FAX (303) 792-0227

Meeting w/ GJ City representatives and Conoco regarding GJ terminal expansion project

Name	Representing
Ron DeVille	Conoco - Regional Engr
HANK MASTERSON	G.J. FIRE DEPT
John Shaver	City of G.J.
Jim Bright	GSFD
~~DREW REEKIE~~	GJFD
Kristen Ashbeck	GJ Community Development
Darrel Vanhooser	Conoco - Senior Agent
michelle Ashton	Conoco - Project Engineer
TOM SETTLE	CONOCO - GRAND JUNCTION FACILITY MANAGER
[illegible]	G.J. FIRE, FIRE CHIEF

CONDITIONAL USE PERMIT APPLICATION

FEB 2 1 1996

1.0 Project Description

Conoco understands that all future expansions and/or modifications at the terminal will first be subject to permit application and review by the fire department. No work will be allowed to proceed that has not first been so permitted. It is further understood that any expansion of the facility will also require a review by city agencies. The City of Grand Junction may elect, as a stipulation of this requested Conditional Use Permit, to reaffirm the necessary review and permitting procedures.

1.1 New Tank Construction

Conoco Inc. proposes to construct two (2) additional fixed-roof storage tanks at the Grand Junction terminal. The first of the tanks will have dimensions of 67′ in diameter by 48′ high and will store unleaded gasoline; the second tank will be 67′ in diameter by 40′ high and will contain No. 2 distillate.

Each new tank will be equipped with an aluminum pontoon-type internal floating roof.

The tanks will be supported by 3′ deep concrete ringwall foundations and 3′ of compacted structural backfill placed within the confines of the ringwall. The ringwall foundations will extend approximately 18″ above grade.

To prevent subsurface contamination in the event of a leak in the steel tank bottoms, a geosynthetic clay liner will be placed at grade level inside the concrete ringwalls and atop the structural backfill. Leak detection pvc piping will be installed within a minimum 6″ deep sand layer above the clay liner and below the tank bottom. This piping will be sloped towards and through the ringwall to route product to external detection points.

1.2 New Tank Secondary Containment

To provide containment in the event of overflow from the proposed tanks, a 12' high by 1' thick perimeter concrete retaining wall will be constructed. An intermediate dike 5' in height by 1' thick will be poured between the tanks to segregate minor spills. The perimeter dike will surround an area of approximately 201' by 93' (exterior dimensions). Total secondary containment capacity can be summarized as follows:

Volume inside diked area (barrels)	38,703
Less volume reduced by pump area (bbls.)	-616
Less volume occupied by intermediate dike	-72
Less full capacity of gasoline tank (bbls.)	-28,256
Less capacity of No. 2 tank below dike (bbls.)	-7,536
Less volume of 24-hr./25-yr. rainfall (bbls.)	-572
Less 20 min. fire water application (assume 10 foam makers at 125 gpm/ea.)	-595
Less 20 min. foam application to tank (assume 0.14 gpm/sq. ft.)	-235
Surplus secondary containment volume (bbls.)	821

To provide additional containment capacity, Tank 8107 will be cleaned, re-piped and placed in overflow containment service. Tank 8107 has an ultimate capacity of 2178 bbls.

Approximately ninety-four (94) 10-inch diameter steel friction piles, filled with concrete, will be driven to support the retaining wall structure. Based upon the results of geotechnical work performed for the site, it is anticipated that the piles will be driven to a depth of 25' to 30'.

1.3 Pumps and Piping for New Tanks

One (1) new rack supply pump (Goulds Model 4x6x13 or equivalent) will be installed for each of the new tanks. The pumps will be placed in a 12' by 24' containment area constructed along the north side of the secondary containment structure. The pump containment area will be paved with concrete and will include an 18" concrete wall along the north side to confine minor spills.

Rack supply piping (8" and 10" diameter) will be installed above-ground from the tanks to the pump suction inlet and from the pump discharge to tie-ins with the existing rack piping. This new rack supply piping will be buried where crossing 2nd Avenue. Pipe racks will be constructed at approximately 20' intervals to support piping about 18" above-grade (some pipe racks will contain multiple levels of piping, with an approximate 18" spacing between adjacent levels).

Piping to fill the new tanks will also be constructed above-grade and placed on the same pipe racks installed to support the rack supply piping. This fill piping will connect to the current Tank 8111 (No. 2) and Tank 8321 (unleaded) fill lines in the area of the existing tankage, for extension above-ground to the new tanks (again, the new tank fill piping will be buried for the 2nd Avenue crossing).

1.4 Corrosion Mitigation

To protect the underside of the new tank steel bottoms, an impressed current cathodic protection system will be installed. The system will include a surface-type anode bed, buried approximately 4' deep within each tank's ringwall foundation, and a rectifier to provide dc current and establish voltage differentials between the tank bottoms and the surrounding soil. Test points and reference cells will be added to verify that the system is working properly.

The buried steel piping constructed across 2nd Avenue will be coated and wrapped to reduce the possibility of corrosion. In addition, the facility's impressed current cathodic protection system will provide additional protection to the buried piping.

The exterior shell and roof of the new tanks and all above-ground piping and equipment will be painted white.

Epoxy coating will be applied to the interior tank floors to protect the steel from the effects of corrosion.

1.5 Spacing of New Tanks

The spacing and setback distances for the new tanks have been established in accordance with the requirements of NFPA 30, and considering that a self-buoyant internal floating roof will be installed in each tank. A comparison of the required NFPA distances and the planned positioning of the tanks follows below:

	NFPA 30 (ft.)	Actual (ft.)
Property line setbacks (1/2 x tank diameter):	33.5	
• From Denning on west		33.5
• From south side of alley on south		35.0
Public way setbacks (1/6 x tank diameter):	11.2	
• From west side of 9th Street		39.0
• From south side of 2nd Avenue		43.0
• From north side of alley on south		15.0
Spacing between tanks (1/6 x sum of dia's.)	22.3	22.3
Tank dike setbacks:		
• From west property line	10	10
• From north side of alley on south	0	2
• From west side of 9th Street	0	20
• From south side of 2nd Avenue	0	30

1.6 Tank Internal Floating Roofs

The proposed new tanks will have fixed metal roofs, weak shell-to-roof seams, and ventilation at the top and eaves as stated in API Standard 650. Each of the tanks will be outfitted with an aluminum internal floating roof. The roofs will be designed in accordance with API Standard 650, Appendix H, under the classification "Metallic Internal Roofs On Floats (Section H.5.2)". Conoco has specified an excess design buoyancy of 100 percent.

From the standpoint of NFPA 30, Section 2-3.2.1, Subsection (a) 2.(ii), the tank described above is classified as a floating roof tank. The spacing requirements for floating roof tanks, as specified in Table 2-1, reflect the following (as stated in "Flammable and Combustible Liquids Code Handbook", Robert P. Benedetti, 1994, page 52):

> "Experience has shown that tanks having floating roofs, as described in 2-3.2.1 (a), are not likely to be involved in serious fires. Most fires in such tanks have burned only at the seal and are usually easily extinguished."

1.7 Tank Demolition, Inspection and Changes-of-Service

Following the construction, testing and placement in service of the proposed tanks, product storage among the existing terminal tanks will be rearranged:

Tank No.	Current Service	Future Service
8110	unleaded	premium unleaded
8111	No. 2 distillate	midgrade unleaded
8108, 8109	midgrade unleaded	No. 1 distillate
8107	midgrade unleaded	firewater overflow
8321, 8322	premium unleaded	empty
547, 1101, 1102, 3156, 4639	No. 1 distillate	to be dismantled

To accommodate the service changes shown, Tanks 8111, 8108 and 8109 will be evacuated of product, cleaned, subjected to a full API 653 out-of-service inspection, repaired if necessary, connected to alternate tank fill and rack supply piping (corresponding to the new product to be stored), and returned to service.

To store premium unleaded, Tank 8110 will be isolated and connected to the fill line from the premium railcar pump and to the rack supply line feeding the premium loading arm. It will not be necessary to clean or enter the tank because the tank will remain in gasoline service.

Tanks 8107, 8321 and 8322 will be drained, ventilated, cleaned and, in the case of Tank 8107, connected to the product transfer and secondary containment overflow piping. Tanks 8321 and 8322 will be emptied and cleaned only. The piping currently connected to these tanks will be removed and transported to a disposal site.

The five (5) small No. 1 distillate tanks (Nos. 547, 1101, 1102, 3156 and 4639) will be drained, ventilated, cleaned and dismantled. All underground piping currently connected to these tanks will be isolated, purged of product and permanently capped.

1.8 Construction Sequence

The general sequence of the proposed new tank construction will proceed as follows (some of the activities listed will overlap one another):

- Demolish existing building on terminal's south lot
- Drive friction piles to support retaining wall foundation
- Excavate for tank ringwall foundations and structural fill
- Install surface anode bed below each tank position
- Form and pour concrete ringwall foundations
- Place and compact structural fill inside ringwalls
- Place geosynthetic clay liner atop structural fill; install leak detection piping and sand layer
- Erect and test integrity of new steel storage tanks
- Install internal floating roof, tank gauging system and high tank alarm in each tank
- Apply internal epoxy coating to tank floor
- Excavate for retaining wall pile cap foundation
- Form and pour pile cap
- Form and pour concrete retaining wall
- Perform finish grading around tanks and retaining wall
- Install new pumps and piping from new tanks to tie-in points
- Disconnect Tank 8110 fill line and tie-in to fill line for new gasoline tank (Tank 8112)
- Accumulate unleaded inventory in Tank 8112; evacuate unleaded from Tank 8110; tie-in new Tank 8112 rack line to existing unleaded rack supply piping; place Tank 8112 in unleaded service
- Repeat steps above to evacuate Tank 8111 and to place new Tank 8113 in No. 2 service
- Transfer premium unleaded from Tanks 8321 and 8322 to Tank 8110 and revise piping
- Clean, perform an API 653 inspection, and repair Tank 8110 as necessary. Transfer midgrade unleaded from Tanks 8107, 8108 and 8109 to Tank 8111 and revise piping
- Clean Tank 8107 and connect to secondary containment overflow piping and to product transfer manifold
- Clean and perform an API 653 inspection of Tanks 8108 and 8109; transfer No. 1 fuel from small tanks to Tanks 8108 and 8109; revise piping
- Clean, disconnect, dismantle and dispose of small tanks previously in No. 1 service
- Clean and isolate Tanks 8321 and 8322

- Paint new tanks and new and disturbed above-ground piping and equipment

1.9 Anticipated Truck Traffic

It is estimated that truck traffic through the Conoco terminal and staging area will grow from 29 trucks per day currently to approximately 40 trucks per day. This volume will be distributed over the terminal's usual hours of operation, which extend to 24 hours per day, 7 days per week. Most of the trucks loading at the terminal are 60' in total tractor/trailer length; however, some trucks are 70' in total length, while some are much shorter than the typical 60'.

A letter from Wayne Hunter of Denning Lumber describing Denning's use of 2nd Avenue will be provided under separate cover.

Once the Grand Junction city agencies have determined the preferred route(s) for truck traffic associated with the terminal, Conoco will revise its initial and refresher driver training sessions to include the instruction to use these designated routes.

1.10 Department of Housing and Urban Development (HUD) Siting Distances

Part 51, Subpart C of 24 CFR, entitled "Siting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature", establishes acceptable separation distances (ASD's) for projects that are provided with HUD funding

ASD's are determined on the basis of published blast overpressure and thermal (fire) radiation safety standards. However, for petroleum products stored in above-ground non-pressurized tanks, blast overpressure levels are not of primary concern (as confirmed by the HUD technical guidebook). The ASD analysis is therefore limited to the thermal radiation safety standards.

Utilizing the HUD technical guidebook (entitled "Urban Development Siting With Respect to Hazardous Commercial/Industrial Facilities"), it was determined that the existing Conoco terminal facilities have an ASD of 56' for buildings and 310' for areas where people are likely to congregate out-of-doors (based on the thermal radiation safety standards). With the addition of the proposed diked area for the new tanks, the ASD's will increase to 75' and 360' respectively.

2.0 Fire Suppression System Design

Conoco will install fire suppression equipment for the new tanks, the diked area surrounding the new tanks, the existing truck loading rack, and the diked area around the existing storage tanks. In addition, an on-site exposure protection cooling water system will be tied in directly to the city fire water supply.

2.1 Facility Fire Water Supply

The project will include connecting the existing exposure protection cooling water system to the city water main (12 inch PVC), located in the east side of 9th street. The City of Grand Junction will perform the road crossing, Conoco will connect west of 9th Street. The following elements will be incorporated into the design:

- Single supply line from the city main to the central foam and cooling water distribution area
- Backflow prevention to protect the city water supply
- 3600 gpm total flow capacity
- A booster pump will likely be installed to compensate for the pressure drop experienced when applying cooling water and foam under the worst-case fire scenario
- Fire department connections will be provided in the event that additional pressure becomes necessary

2.2 On-Site Protection From Exposures

To distribute cooling water around the site for exposure protection, the existing "dry" fire water line will be converted to a "wet" system through connection to the city water main. The design of the cooling water system will include the following:

- The on-site water line will be looped by installing new piping along the northern side of the terminal.
- Post indicator valves will be installed to control the direction of flow in the cooling water line.
- The five (5) existing monitor nozzles on the water line will be evaluated and upgraded if necessary.
- Each monitor will be capable of providing 500 to 750 gpm flow capacity.
- One (1) of the existing monitor nozzles will be changed to a self-educting type to provide foam and water capabilities to the railcar

staging area. In addition, an off-site hydrant located west of the staging area will be equipped with a self-educting foam monitor (subject to the fire department's resolution of property ownership issues).

- The three (3) monitors located along the north side of 2nd Avenue will be utilized to supply cooling water to the new tanks Nos. 8112 and 8113. As stated, these monitors will be upgraded if necessary.
- One (1) additional monitor and one (1) additional fire hydrant will be added to protect property located to the south of the terminal from exposures. The additional monitor will be located in the southeast corner of the facility.
- New cooling water piping will be installed from the central distribution area to the new monitor and hydrant (this piping will not be looped).
- All new and existing monitors and above ground piping will include provision for drain-up to prevent freezing.
- Each new and existing monitor will be equipped with a riser with a 2-1/2" gated "Y" connection for supplementary hose streams.

2.3 Central Foam Supply and Distribution

The foam suppression system will be designed with a central supply from which foam can be directed either to the truck rack, tank dike area, or the new tanks. Manifold piping and isolation valves will be provided to accomplish this requirement. Additional features of the central supply system will include:

- Balanced pressure skid-mounted foam proportioning system with appropriately sized pump, piping, and proportioners.
- Atmospheric foam tank sized to hold the foam quantity required for the worst-cast fire scenario.
- A heated building will be installed to house the foam system
- An annunciator panel (may not be located in foam building) with the capability to identify and differentiate between fire, tamper, flow and trouble alarms will be installed.
- Individual alarm indications will be transmitted to a central dispatch center.

2.4 Diked Area Surrounding New Tanks

Fixed foam makers are proposed to provide fire suppression for the 201' x 93' x 12' high concrete retaining wall that will surround the new tanks. The foam makers will be mounted atop the concrete wall. System design criteria will include the following:

- According to NFPA 11, the required application rate for fixed foam makers is 0.1 gpm/sq. ft. The design application time is 30 minutes.
- At an approximate capacity of 125 gpm each, it is estimated that ten (10) foam makers will be required to protect the diked area.
- It is anticipated that foam maker supply piping in the diked area will be located above-ground, supported from the concrete retaining wall. All above-ground piping will have the capability of being drained to prevent freeze-up.
- The system will likely be designed with the capability to isolate the adjacent diked areas segregated by the intermediate dike.

2.5 New Tanks Nos. 8112 and 8113

The fire suppression system for each of the new tanks will be designed for full surface foam application and will incorporate the following additional criteria:

- The application rate for the foam chambers will be 0.14 gpm/ft^2 and the design discharge time will be 55 minutes.
- One (1) foam chamber will be required per tank. Each foam chamber shall be welded to the foam supply piping.
- Each tank will be equipped with separate foam supply piping or with an isolation valve to control which tank receives foam.
- System drainage capabilities will be included to prevent freeze-up of the foam chambers and foam lines.
- The foam chamber on each tank will be positioned in direct line-of-sight from the applicable cooling water monitors to facilitate exposure protection of the chambers. The chambers will also be located away from tank shell and roof vents.

2.6 Truck Rack and Containment Area

The existing truck loading facility, equipped with an overhead canopy (approximate dimensions 30' x 50' x 15' high) will be outfitted with fire suppression. The suppression system will also provide coverage to the 1200 sq. ft. uncovered concrete containment area lying adjacent to the rack. Features of the system will include:

- The design application rate for the truck rack system will be 0.16 gpm/sq. ft. and the application time will be 10 minutes.
- The fire protection system will include overhead spray monitors, fire detection devices, under-truck spray nozzles, and protection for the containment area that lies outside the overhead canopy.
- A separate above-ground foam line will connect the central foam supply to the truck rack.

2.7 Existing Diked Area

The design of a fire suppression system for the existing diked area is under evaluation. It is expected that the most feasible system for this area will involve the installation of foam makers, similar to those described in Section 2.4 above for the diked area around the proposed tanks. However, during the design process for the terminal fire system, Conoco will also investigate the alternative of protecting the existing diked area with foam monitors.

2.8 On-Site Foam Supply

A summary of foam quantity calculations is presented below:

Item	Qty./Vol.
Diked Area Around Proposed Tanks 8112, 8113:	
• application rate (gpm/sq. ft.)	0.10
• sq. ft. protected	11,500
• total flow required (gpm)	1150
• application time (min.)	30
• foam concentrate percent	3
• total foam required (gal.)	1035
Proposed Storage Tanks 8112, 8113 (each tank):	
• application rate (gpm/sq. ft.)	0.14
• sq. ft. protected	3,526
• total flow required (gpm)	494
• application time (min.)	55
• foam concentrate percent	3
• total foam required (gal.)	815
Truck Loading Rack and Containment Area	
• application rate (gpm/sq. ft.)	0.16
• sq. ft. protected	2,700
• total flow required (gpm)	432
• application time (min.)	10
• foam concentrate percent	3
• total foam required (gal.)	130
Diked Area - Existing Tanks 8110, 8111:	
• application rate (gpm/sq. ft.)	0.10
• sq. ft. protected	6,600
• total flow required (gpm)	660
• application time (min.)	30
• foam concentrate percent	3
• total foam required (gal.)	594
Diked Area - Tanks 8107, 8108, 8109, 8321, 8322:	
• application rate (gpm/sq. ft.)	0.10
• sq. ft. protected	5,625
• total flow required (gpm)	563
• application time (min.)	30
• foam concentrate percent	3
• total foam required (gal.)	506

Based upon the calculations shown, it is anticipated that an 1100 to 1200 gal. atmospheric foam tank will be provided to supply the fire system components, corresponding to the worst-case diked-area fire scenario.

In addition to the foam stored in the central foam tank, portable foam supplies will be staged at the terminal to provide protection for the railcar staging area. The portable supplies will likely be stored in 55-gal. drums.

2.9 Back-Up Foam Supplies

At its Denver refinery, Conoco has approximately 10,000 gal. of stored foam supplies. By mutual agreement with Total Refining in Denver, Conoco has access to Total's stored foam, which consists of an additional 10,000 gal. This combined 20,000 gal. of foam would likely serve as the first of source of foam back-up for the Grand Junction terminal.

Conoco also has access to significant back-up foam supplies directly from the manufacturer. Within 24 hours of notification, the manufacturer can deliver foam to any site within the continental United States.

3.0 Containment And Overflow Protection

3.1 Existing Tankage

Following construction of the proposed storage tanks, six (6) tanks will be in active product service at the terminal. A summary of these tanks, the fill volume of each, and the volume remaining above each tank's high level alarm is shown below:

Tank No.	Product Service	Ultimate Vol. (Bbls.)	Fill Vol. (Bbls.)	Vol. Above Hi Level (Bbls.)
8108	No. 1	2,178	1,941	241
8109	No. 1	2,171	1,939	232
8110	Prem. U/L	8,431	8,230	201
8111	Mid. U/L	8,392	8,245	147
8112	Unleaded	30,140	28,256	1,884
8113	No. 2	25,117	23,233	1,884

As shown, approximately 4,589 barrels of spare containment capacity will lie above the high level alarms in the terminal tanks. In addition, Tank 8107 provides an incremental 2,178 bbls. of capacity.

3.2 Planned Tank 8107 Pump-Out Capabilities

(Drawing 15-1.18-2 illustrates an isometric view of the existing Grand Junction terminal piping. This drawing shows the prover manifold, located near Tank 8108, which contains piping and valves that tie all tank fill lines to one another and that also connects the truck rack prover can to each of the tank fill lines. The drawing also shows the loading arm prover connection coupler, next to the truck rack prover can).

After the construction of proposed Tanks 8112 and 8113, Tank 8107 will be removed from midgrade unleaded gasoline service, cleaned, and placed in overflow containment service. A 4" line will be installed, connecting the diked area of Tanks 8112 and 8113 to Tank 8107. Any excess fluid accumulated inside the diked area can then be routed to Tank 8107.

Currently, Tanks 8107, 8108 and 8109 have common fill piping and common rack supply piping (see Drawing No. 15-1.18-2). This piping will remain in place following construction of the proposed tanks. Spectacle blinds will be installed where the common fill and supply piping connects to Tank 8107. Then, in the event that it becomes necessary to transfer product into Tank 8107, the spectacle blind and tank fill valve will be opened (and the open-end line connected to Tank 8112 and 8113 secondary containment will be closed). Product will be channeled into the tank using the prover manifold and the Tank 8107/8108/8109 fill line.

To evacuate Tank 8107 to the truck rack, the rack supply valves on Tanks 8108 and 8109 will be closed and the Tank 8107 rack valve will be opened. The existing rack supply pump near Tank 8108, which will then be in No. 1 service, will route product from Tank 8107 onto awaiting trucks in the rack area.

3.3 Tank-To-Tank Product Transfer Capabilities Using Terminal Pumps

When the truck loading rack meters are "proved" or calibrated, each of the respective truck loading arms is connected to the prover connection coupler (see Drawing No. 15-1.18-2). Product is then pumped from tankage, through the loading arm, and into the prover can. After metered volumes are compared to those contained in the prover can, the prover pump is used to evacuate product from the prover can into tankage via the prover manifold. Since the prover manifold connects to all tank fill lines, product can be routed to any and all terminal tanks.

The same process described above could be used for tank-to-tank product transfer in the event of an emergency. In addition, minor piping revisions would allow bypassing the prover can and pump to flow directly from any loading arm into any selected terminal tank via the prover manifold.

3.5 Existing Sump Tanks

3.5.1 Truck Loading Rack Sump Tanks

Drainage collected in the truck rack paved area is collected by 4" piping and gravity fed to a 110 gal. buried tank. This tank is equipped with a pump, level actuation switches to start and stop the pump, and a high level alarm. When the pump is activated, product is fed to the 16,000 gal. above-ground tank located near Tank 8322. Liquid accumulated in this tank is periodically trucked off-site for processing and recycling.

To provide back-up capacity, the 110 gal. buried tank is connected to a second buried tank. The second buried tank has a capacity of 6000 gal. and is also equipped with a high level alarm that will shut down loading operations at the truck rack. The 6000 gal. tank is evacuated using vacuum trucks.

3.5.2 Railcar Off-Loading Sump Tank

A 2000 gal. buried sump tank and pump is positioned near the railcar off-loading manifold. This sump tank receives product when the railcar pumps are primed. The sump is evacuated back into the suction piping of the railcar off-loading pumps.

4.0 Operating And Safety Features Of Existing Facility

4.1 Tank Secondary Containment Capacities

Two (2) separate diked areas surround the existing terminal tankage. Tanks 8110 and 8111 are positioned inside a 60' x 113' x 9' high concrete dike; Tanks 8107, 8108, 8109, 8321 and 8322 are surrounded by a 74' x 73' x 40" high dike. A summary of the containment capacity of these two (2) diked areas is shown below:

Item	Qty./Vol.
Tanks 8110 and 8111:	
• Diked area capacity 60 'x 113' x 9' (bbls.)	10,868
• Full-fill volume of either tank (bbls.)	8,245
• Volume in other tank below dike top (bbls.)	2,014
• 24-hour, 25-year rainfall event (bbls.)	207
• 20 min. fire suppression at 0.10 gpm/sq. ft.	203
• Containment volume remaining	199
Tanks 8107, 8108, 8109, 8321 and 8322:	
• Diked area capacity 74' x 73' x 40" (bbls.)	3,207
• Full-fill volume of largest tank (bbls.)	1,941
• Volume in other tanks below dike top (bbls.)	909
• 24-hour, 25-year rainfall event (bbls.)	165
• 20 min. fire suppression at 0.10 gpm/sq. ft.	157
• Containment volume remaining	35

4.2 Tank Spacing

All of the existing terminal tanks Nos. 8107, 8108, 8109, 8110, 8111, 8321 and 8322 are equipped with internal floating roofs. According to NFPA 30, the required minimum shell-to-shell spacing for floating roof tanks is one-sixth of the sum of the tank diameters. A summary of existing tank spacing compared to NFPA 30 standards is presented below:

Tank Nos.	Required NFPA 30 Spacing (ft.)	Actual Spacing (ft.)
8110 and 8111	13.3	6.5
8111 and 8321	9.5	15.0
8321 and 8322	5.7	4.6
8109 and 8321	10.8	5.0
8108 and 8109	8.3	8.9
8107 and 8108	8.3	8.8

* Tanks 8321 and 8322 will be removed from service following the construction of Tanks 8112 and 8113.

4.3 Tank High Level Alarms

The existing terminal tanks are equipped with mechanically-actuated high level alarms. If activated, these devices issue an alarm to the terminal control building and automatically shut down all railcar off-loading pumps.

The proposed Tanks 8112 and 8113 will have high level alarms similar to those on the existing tankage. However, the Tank 8112 and 8113 alarms will be equipped with dual microswitches. In addition, an audible alarm system will be added to the terminal equipment during new tank construction.

4.4 Existing Fire Suppression Equipment

The existing stationary fire suppression equipment consists of a 6" "dry" line and five (5) monitors encircling the storage tank area. To activate this equipment, water would have to be supplied via the fire department connections provided at two (2) locations along 2nd Avenue.

The terminal is also equipped with one (1) 150 lb. wheeled fire extinguisher stationed near the office building at the east fence line. In addition, seven (7) 30 lb. portable hand-held extinguishers are located at various positions around the terminal site (one (1) each at the railcar off-loading manifold, the current No. 1 storage area, the truck loading rack, the preset building, the office building, the bill-of-lading building and the vapor combustion unit).

4.5 Railcar Evacuation Procedures

In the event of an emergency, the Grand Junction terminal would notify Southern Pacific Railroad to commence railcar evacuation procedures. The primary contact to initiate this operation would be the railyard control center (Yard Master), which can be reached 24 hours per day, 7 days per week by phoning 970-248-4264. As a secondary notification, the railyard superintendents' office would be contacted at 970-248-4225.

All railcar evacuation procedures would be performed by railroad personnel.

To: KRISTENA (Kristen Ashbeck)
From: Hank Masterson
Subject: Re: CONOCO - Council 6/5
Date: 5/30/96 Time: 11:59AM

Originated by: KRISTENA @ CITYHALL on 5/29/96 12:38PM
Replied by: HANKM @ CITYHALL on 5/30/96 11:59AM

Kris,
Jim and I read over your staff report-it looks fine.

By the way-I got a phone call from Michelle Ashton today regarding the radiant heat study. There will be another delay. Their report will not be available to us until the week of June 10th. Also, Conoco's corporate offices will be reviewing the report before it is sent to us and there is a possibility the project will be dropped if they feel the study is too damaging.

Michelle tells me that Conoco will ask for a continuance to the July 17th council hearing for their presentation.

Let me know if you have nay questions on this. Thanks.

To: kristen ashbeck
Cc: johns,marka
From: Dan Wilson
Subject: Fwd: Re: Fwd: Conoco: City Council Hearing
Date: 5/30/96 Time: 8:28AM

Originated by: HANKM @ CITYHALL on 5/28/96 3:09PM
Forwarded by: RICKB @ CITYHALL on 5/29/96 9:42AM (CHANGED)
Forwarded by: DANW @ CITYHALL on 5/29/96 12:40PM (CHANGED)
Replied by: RICKB @ CITYHALL on 5/29/96 1:55PM
Forwarded by: DANW @ CITYHALL on 5/30/96 8:28AM (UNCHANGED)

********** ORIGINAL MESSAGE FOLLOWS
****

I feel that the sole reason for the continuance is that Conoco is having difficulty with preparation of the thermal radiant study that I requested following the Planning Commission presentation. At a recent meeting with Conoco, they indicated that they had received a wide discrepancy in results from their consultant, M&M Engineering, and an in house source of their own. The original dead line for the study was April 5. The 4/5 deadline came and passed without receipt of the study. We have had a few telephone contacts with Conoco representatives over the study as well as a couple of meetings here in Grand Junction.

KRISTEN ASHBECK

THOMAS C. VOLKMANN, P.C.
ATTORNEY AT LAW

655 North 12th Street
Grand Junction, Colorado 81501
Phone: (970) 256-0440 • Fax (970) 256-0457

May 31, 1996

HAND DELIVERY

Grand Junction City Council
250 North Fifth Street
Grand Junction, Colorado 81501

Re: CONOCO CUP APPLICATION - #VR-95-176
REQUEST FOR CONTINUANCE

Dear Ladies and Gentlemen:

In accordance with my conversation with John Shaver earlier this week, please consider this letter to be a formal request by Conoco, Inc. ("Conoco") for a continuance of the City Council hearing, presently scheduled for June 5, 1996, relative to Conoco's Application for an Amendment to their Conditional Use Permit, allowing Conoco to construct two additional tanks to store fuel at Conoco's current location on South 9th Street.

As you may be aware, the Grand Junction Fire Department (the "Fire Department") requested some changes be made in the assumptions for the radiant heat transfer study which Conoco has been performing at the request of the Fire Department. Although the original study took longer than everyone anticipated, these changes in the assumptions have required additional work and have resulted in additional related delay.

Representatives of Conoco have advised me that they anticipate being able to get the revised heat transfer study to the Fire Department by the beginning of next week. However, the Fire Department has requested, in previous conversations, that they have approximately two weeks to review and comment on the results of that heat study. Of course, the June 5, 1996 hearing schedule does not allow for the necessary time for the Fire Department to adequately review that study. No one's interests would be served by shortening whatever time the Fire Department feels they need to adequately address the issues in this study they have requested.

For the above reasons, Conoco requests that the City Council continue the hearing from June 5, 1996, to July 17, 1996. That way, there can be no question that everyone has an ample amount of time to review the revised study results and prepare their responses to them.

I anticipate attending the City Council Workshop meeting on Monday night, June 3, 1996. It is my expectation we will address this continuance at that time. It is also my understanding that representatives of Conoco will be present, should the Council have any questions.

Should you need any more information regarding this request, please let me know. It is our understanding that the Fire Department will join in or consent to this request, in light of their inability to review the study, to date.

We thank you in advance for your consideration of this request. In light of its active response to the pending application by Conoco, I am sending a copy of this request to the Concerned Citizens Resource Association, so that group will remain apprised of the status of this matter.

Very truly yours,

THOMAS C. VOLKMANN

TCV:cez
cc: John Shaver, City Attorney
Conoco, Inc.
The Concerned Citizen Resource Association
c/o Anne Landman

Jennie V. Baker
Manager Supply & Distribution, Rockies
Product Supply and Commercial Marketing
Refining & Marketing, North America

Conoco Inc.
P. O. Box 2197
Houston, TX 77252
(713) 293-2031

June 27, 1996

Ms. Kristen Ashbeck
Community Development Department
City of Grand Junction
250 North 5th St.
Grand Junction, CO 81501

Dear Ms. Ashbeck:

I'm pleased that you could join us the other morning as we informed Mayor and Mark about Conoco's decision to withdraw it's permit application for expanded tankage at the terminal located in downtown Grand Junction. We felt strongly that it was important to discuss the decision and our reasons for making it with you and other key city officials before making a public announcement.

I know that Conoco's team responsible for developing new, reliable methods to provide adequate supplies of fuels for Grand Junction and western Colorado will maintain contact with you.

Sincerely,

Jennie V. Baker

Jennie Baker

Arrived CDD 7/1/96