

# CITY OF DIOMEDE BULK FUEL FACILITY



## MONITORING PLAN AND RECOMMENDATIONS

Prepared for:  
**ALASKA ENERGY AUTHORITY (AEA)**

**NOVEMBER 30, 2006**

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Prepared by:

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## OVERVIEW

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This Monitoring Plan and Recommendations was completed under contract to the Alaska Energy Authority as a follow-up to a Bulk Fuel Upgrade project in Diomedes, Alaska that constructed a new bulk fuel storage site and a fuel dispensing site. The fuel storage site is located just north of the high school and the fuel dispensing site is located adjacent to the water storage tank, which is in the vicinity of the power plant, water plant and washeteria. The bulk fuel storage facility has four storage tanks, a diesel dispensing and gasoline storage and dispensing facility for the Village, and intermediate diesel storage and equipment fueling for the City. Additionally, the project constructed a new marine header and combination diesel fill/transfer pipeline from the header to the storage facility, as well as transfer pipelines from the storage facility to the dispensing facility and from the dispensing facility to city-owned utilities.

An important component of the Diomedes bulk fuel upgrade project was the development of a Business Operating Plan, which provided a guideline for the City of Diomedes's maintenance and operation and sustainability of the Bulk Fuel Upgrade (the "Facility"). The City of Diomedes, (the "Primary Operator") is responsible to operate and sustain the newly installed Facility according to the criteria and guidelines outlined in the Business Operating Plan.

### *Facility Participants*

The Facility participants are:

#### **City of Diomedes**

Primary Contact Name: *Patrick Omiak, Mayor*

Phone: (907) 686-3071 Fax: (907) 686-2192

Address: P.O. Box 7039, Little Diomedes, AK 99762

Usage: The City will utilize its facility assets to operate its utilities.

#### **Native Village of Diomedes**

Primary Contact Name: *Orville Abkinga, Jr.*

Phone: (907) 686-2175 Fax: (907) 686-2203

Address: P.O. Box 7079, Little Diomedes, AK 99762

Usage: The Village will utilize its facility assets to retail fuel.

#### **Bering Strait School District**

Primary Contact Name: *Bob Dickens, Director-Facilities*

Phone: (907) 624-3611 x 4249 Fax: (907) 624-3099

Additional Contact Name: *John Davis, Superintendent*

Phone: (907) 642-3611 x 4240

Address: BSSD District Office, P.O. Box 225, Unalakleet, AK 99684

Usage: The BSSD will utilize its facility assets to operate its physical plant.

### *Facility Components & Capacity*

The following table provides a summary of the Facility tankage, by type of fuel:

### *Facility Components & Capacities*

| Storage/Dispensing Capacity                                    | Number        | Gallons<br>Per Tank<br>(Gross) | Total<br>Gallons<br>(Gross) | Gallons<br>Per Tank<br>(Net) | Total<br>Gallons<br>(Net) |
|--|---------------|--------------------------------|-----------------------------|------------------------------|---------------------------|
| <b>City</b>  |               |                                |                             |                              |                           |
| Diesel   |               |                                |                             |                              |                           |
| Primary Storage  | 2             | 32,200                         | 64,400                      | 28,980                       | 57,960                    |
| Intermediate Storage   | 1             | 12,000                         | 12,000                      | 10,800                       | 10,800                    |
| <b>Total City</b>  | <b>3</b>      |                                | <b>76,400</b>               |                              | <b>68,760</b>             |
| <b>Village</b>   |               |                                |                             |                              |                           |
| Gasoline   |               |                                |                             |                              |                           |
| Retail Dispensing  | 1*            | 6,000                          | 6,000                       | 5,400                        | 5,400                     |
| Subtotal Gasoline  | 1             | 6,000                          | 6,000                       | 5,400                        | 5,400                     |
| Diesel   |               |                                |                             |                              |                           |
| Retail Dispensing  | 1*            | 6,000                          | 6,000                       | 5,400                        | 5,400                     |
| Primary Storage  | 1             | 32,200                         | 32,200                      | 28,980                       | 28,980                    |
| Subtotal Diesel  | 2             | 38,200                         | 38,200                      | 34,380                       | 34,380                    |
| <b>Total Village</b>   | <b>3</b>      |                                | <b>44,200</b>               |                              | <b>39,780</b>             |
| <b>Bering Strait School District</b>                           |               |                                |                             |                              |                           |
| Diesel   |               |                                |                             |                              |                           |
| Primary Storage  | 1             | 32,200                         | 32,200                      | 28,980                       | 28,980                    |
| <b>Total BSSD</b>  | <b>1</b>      |                                | <b>32,200</b>               |                              | <b>28,980</b>             |
| <b>Total Storage/Dispensing</b>                                | <b>7</b>      |                                | <b>152,800</b>              |                              | <b>137,520</b>            |
| <b>Pipeline Components</b>                                     |               |                                |                             |                              |                           |
|  | <b>Number</b> |                                |                             |                              |                           |
| Marine Header  | 1             |                                |                             |                              |                           |
| Fill Pipeline to Storage Site                                  | 1             |                                |                             |                              |                           |
| Pipeline from Storage to<br>Dispensing Site                    | 1             |                                |                             |                              |                           |
| Pipeline to Power Plant, Washeteria<br>& Water Treatment Plant | 1             |                                |                             |                              |                           |
| *Dual-Fuel Retail Dispenser                                    | 1             |                                |                             |                              |                           |

Each participant's storage capacity is in excess of its present usage. The Denali Commission guidelines dictate that extra capacity is provided to account for 10 years of growth in fuel requirements.

#### ***Community Information***

The village of Diomedes is located on the west coast of Little Diomedes Island in the Bering Strait, 135 miles northwest of Nome. Accessibility to the village is extremely limited due to high winds and steep, rocky terrain. There is no airstrip in the village, however there is a state-owned heliport.

The population of Diomedé, predominantly Ingalikmiut Eskimo, has fluctuated over the past fifty years and the economy of the area is primarily focused on subsistence activities. Water is drawn from a mountain spring, then heated and stored in a community-owned tank, and then hauled by households from the storage tank. The tank is filled for winter use, however it is typical for the water supply to run out by March. All households use privies and honey buckets. The City provides most utility services; it owns and operates the washeteria, the water storage system, and the electric utility.

Selected demographic and historical data for the community is provided below:

*Selected Statistics –Diomedé*

| <b>Population (2000 Census Data)</b>    |          |
|---|----------|
| 2005 (State Demographer Estimate)       | 132      |
| 2000                                    | 146      |
| 1990                                    | 178      |
| 1980                                    | 139      |
| 1970                                    | 84       |
| 1960                                    | 88       |
| 1950                                    | 103      |
| <b>Housing (2000 Census Data)</b>       |          |
| Occupied Housing                        | 43       |
| Vacant Housing Due to Seasonal Use      | 0        |
| Other Vacant Housing                    | 4        |
| <b>Economic Data (2000 Census Data)</b> |          |
| Unemployed/Not in Labor Force           | 48.9%    |
| Median Household Income                 | \$23,750 |

*City of Diomedé*

The City of Diomedé has successfully administered and operated a number of community programs and services. The following table lists the City’s current programs:

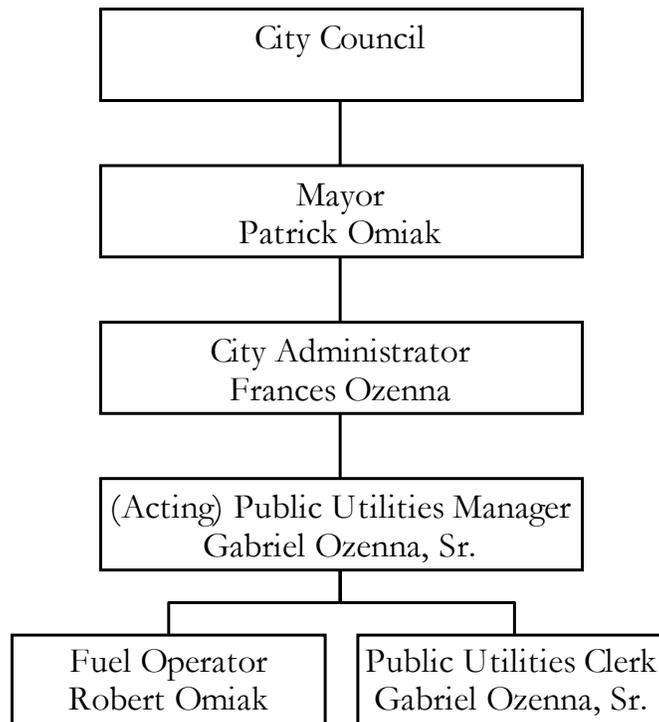
| <b>CURRENT PROGRAMS</b>    |   |
|----------------------------|---|
| <i>Community Programs:</i> | Village Police Officer<br>Volunteer Fire Department<br>City Community Hall & Bingo  |
| <i>Service Programs:</i>   | Water Utility & Washeteria<br>Landfill<br>Electric Utility<br>Bulk Fuel and Retail Sales<br>Cable Television<br>Postal Services<br>Health Aides |

The City purchases fuel for the community power plant and the heating of city owned buildings. Heating fuel is sold to residents and businesses, most recently at \$4.80 per gallon/diesel. The City orders diesel fuel once a year, usually in July, from a BIA fuel supplier and it is barged from Seattle. In July of 2006, the City paid \$3.27/gallon, which included the delivery charge. The Bering Straits School District orders fuel separate from the City and manages its own finances. The Native Village of Diomedé buys their fuel from the City.

Since the Business Operating Plan, dated January 15, 2004, was finalized, a new City Mayor, Patrick Omiak, was elected to office and the public utilities manager and fuel operator positions were vacated. The Public Utilities Clerk is the acting public utilities manager.

The following chart illustrates the updated staff relationships of the City of Diomedé's bulk fuel facility:

**CITY OF DIOMEDE  
BULK FUEL FACILITY  
STAFFING ORGANIZATIONAL CHART**



### ***Monitoring Site Visit***

The Alaska Energy Authority contracted with Aurora Consulting, of Anchorage, Alaska, to conduct a review of the City of Diomedes's facility business operations and to develop a "*Monitoring Plan and Recommendations*" report. The scope of the assignment included working with the City to obtain information on existing management and operational systems, comparing those systems to Business Operating Plan requirements and other "best practices", making recommendations for changes and/or training, developing on-going monitoring tools, and/or working to cure any deficiencies or defaults experienced by the City.

Aurora Consulting staff worked with acting public utilities clerk, Gabriel Ozenna, Sr., during October and November 2006 to review business practices, compliance with the Business Operating Plan, and general City challenges and concerns.

### ***Monitoring Plan and Recommendations***

The following Monitoring Plan and Recommendations is organized into three sections:

- Management and Operational Skills
- Business Operating Plan Compliance
- Recommendations

Management and operational skills identify those skills and practices that are crucial to the short-term viability of a bulk fuel facility, while Business Operating Plan compliance areas identify those activities that are required by the Denali Commission approved Business Operating Plan.

Management skills include administration, fiscal systems, and collections. Operational skills include the ability to perform maintenance, repair, and operation of the bulk fuel facility. Both skill sets require knowledgeable and trained managers, bookkeepers, and facility operators to manage and operate the Facility on a daily basis. In contrast, the business operating compliance section details the key activities and actions that are required to be completed by the Primary Operator in order to be in compliance with the terms and conditions of their Business Operating Plan.

Additionally, this report includes major recommendations for continued actions and training, which are detailed in the conclusion section of this report. These recommendations are limited to those actions necessary to meet the deficient management and operational skills or Business Operating Plan compliance areas.

## BULK FUEL FACILITY MANAGEMENT/OPERATIONAL SKILLS

### *Financial Management*

(1=Lowest Skill Level 5= Highest Skill Level)

| 1                              | 2 | 3 | 4 | 5 | <i>Financial Management Skill Areas</i>                         |
|--------------------------------|---|---|---|---|---|
| <i>Annual Budget</i>           |   |   |   |   |   |
|                                |   |   | x |   | Develop and utilize budgeting process                           |
|                                |   |   |   | x | Staff understanding of budget                                   |
| <i>Bookkeeping</i>             |   |   |   |   |   |
| x                              |   |   |   |   | Develop and track facility costs using a Chart of Accounts      |
| x                              |   |   |   |   | Understands and tracks operation & management (O&M) costs       |
| x                              |   |   |   |   | Understands and tracks renewal & replacement (R&R) costs        |
| <i>Collection Policy</i>       |   |   |   |   |   |
|                                |   | x |   |   | Policy in place   |
|                                |   | x |   |   | Policy implemented  |
|                                | x |   |   |   | Collections at appropriate level                                |
| <i>Business Operating Plan</i> |   |   |   |   |   |
|                                | x |   |   |   | Policy board has general understanding of Plan and requirements |
|                                | x |   |   |   | Management has general understanding of Plan and requirements   |
|                                | x |   |   |   | Staff has general understanding of Plan and requirements        |
|                                | x |   |   |   | Management understands financial assumptions and tables         |
|                                | x |   |   |   | Staff understands financial assumptions and tables              |
|                                | x |   |   |   | Management capable of annual Plan update                        |
|                                | x |   |   |   | Staff capable of annual Plan update                             |

Comments:

#### *Annual Budget*

The City has just developed an annual budget for the bulk fuel facility as required in the Business Operating Plan.

#### *Bookkeeping*

The City has not developed a Chart of Accounts for tracking O&M and R&R costs for the bulk fuel facility as required in the Business Operating Plan, however, funds within the bulk fuel facility management account have been “earmarked” for O&M and R&R.

#### *Collections Policy*

Beginning in the summer of '06, the City has cut back on the “fuel on account” system and now requires payment upon receipt of fuel. Those with overdue accounts are reminded with the monthly electric utility billing. This has not been a very effective method of collections of over due accounts. Small claims court is being considered for one of the largest overdue account holders.

#### *Business Operating Plan*

While the City has a copy of the Business Operating Plan, no one was able to locate it at this time. The management and bookkeeping responsibilities of the Business Operating Plan have not been implemented.

## Personnel Management

(1=Lowest Skill Level 5= Highest Skill Level)

| 1                       | 2 | 3 | 4 | 5 | Personnel Management Skill Areas                     |
|-------------------------|---|---|---|---|--|
| <i>Job Descriptions</i> |   |   |   |   |  |
|                         |   |   |   | x | Job descriptions current for all positions           |
|                         |   |   | x |   | Staff aware of/understand job descriptions           |
| <i>Staffing</i>         |   |   |   |   |  |
|                         |   |   | x |   | Staffing adequate to operate & maintain the facility |
| <i>Training</i>         |   |   |   |   |  |
|                         | x |   |   |   | Staff has adequate training for job requirements     |
| x                       |   |   |   |   | On-going training in place                           |

Comments:

### *Job Descriptions*

Job descriptions are current for the City's staff positions and include the Primary Operator's roles and responsibilities as described in the Business Operating Plan.

### *Staffing*

It appears that the staff currently in place is sufficient to administrate and operate the bulk fuel facility.

### *Training*

The acting Public Utilities Manager/Public Utilities Clerk, having attended the Bulk Fuel Managers training, indicated it would be helpful to him to receive additional follow-up training in bookkeeping; and to review and discuss the details and updating of the business plan. Updating computer skills is also of interest. The new Fuel Operator is scheduled to receive fuel operators training very soon.

## Operations Management

(1=Lowest Skill Level 5= Highest Skill Level)

| 1                                | 2 | 3 | 4 | 5 | Operations Management Skill Areas                              |
|----------------------------------|---|---|---|---|--|
| <i>General Operations</i>        |   |   |   |   |  |
|                                  |   | x |   |   | Management/staff have general understanding of operation needs |
| x                                |   |   |   |   | System to schedule tasks for routine maintenance               |
| x                                |   |   |   |   | System to schedule tasks for non-routine maintenance           |
| <i>Inventory Control</i>         |   |   |   |   |  |
| x                                |   |   |   |   | Inventory control system in place                              |
| x                                |   |   |   |   | Knows what parts to keep in inventory for routine maintenance  |
| <i>Emergency/ Spill Response</i> |   |   |   |   |  |
|                                  |   |   | x |   | Staff can explain/locate oil spill response plan               |
| x                                |   |   |   |   | Written safety policy  |

Comments:

### *General Operations*

Management staff expressed that they had a general understanding of operations needs and understood what routine maintenance functions needed to occur. While there is no formal operations and maintenance plan, the procedures and maintenance manual is referenced regularly. Although no one is currently on staff to perform regular inspections, things are taken care of as they occur.

There are not yet established systems to schedule non-routine (R&R) repair functions. The R&R schedule in the Business Operating Plan is a possible tool to develop a system for scheduling non-routine repair functions.

### *Inventory Control*

The acting public utilities manager reported that there is no inventory of spare parts available to perform common repairs. The notebook containing the U.S. Coast Guard Operations Manual has a list of spill response equipment that should be maintained in inventory by the City but the spill response kit is not on hand at this time.

### *Emergency/ Spill Response*

The City has received its copies of the U.S. Coast Guard Operations Manual, U.S. EPA Spill Prevention Control and Countermeasure Plan (SPCC) and the EPA Facility Response Plan prepared by AEA. The acting Public Utilities Manager was able to locate each of the plans, but it is not clear how well the plans could be implemented due to the lack of a spill response kit.

## BUSINESS OPERATING PLAN COMPLIANCE

### *Financial Management*

| Yes                          | No | NA | <i>Financial Management Compliance Areas</i>             |
|------------------------------|----|----|--|
| <i>O&amp;M Account</i>       |    |    |  |
| x                            |    |    | Accounting established                                   |
|                              | x  |    | Regular deposits into account                            |
|                              | x  |    | Systems in place for \$5,000 authorizations              |
| <i>R&amp;R Account</i>       |    |    |  |
|                              | x  |    | Accounting established                                   |
|                              | x  |    | Regular deposits into account                            |
|                              | x  |    | Interest-bearing savings account                         |
|                              | x  |    | Resolutions required                                     |
|                              |    | x  | 2 signatures required                                    |
|                              |    | x  | Escrow account established                               |
|                              |    | x  | Resolutions required                                     |
|                              |    | x  | 2 signatures required                                    |
| <i>Budgets</i>               |    |    |  |
|                              | x  |    | O&M budget   |
|                              |    | x  | Prior to fiscal year                                     |
|                              | x  |    | R&R budget   |
|                              |    | x  | Prior to fiscal year                                     |
| <i>Business Plan Updates</i> |    |    |  |
|                              | x  |    | Review assumptions                                       |
|                              | x  |    | Update tables  |
| <i>Audits</i>                |    |    |  |
|                              | x  |    | Annual audit conducted by qualified, independent auditor |
|                              | x  |    | Copy to Denali Commission                                |
| <i>Annual Report</i>         |    |    |  |
|                              | x  |    | Submitted to Denali Commission timely                    |
|                              | x  |    | Summary of O&M and R&R Projects                          |
|                              |    | x  | Expenditures and account balances                        |
|                              | x  |    | Upcoming O&M and R&R budgets                             |
|                              | x  |    | Updated business plan financial tables                   |
|                              | x  |    | Other information  |
| <i>Insurance</i>             |    |    |  |
|                              | x  |    | General liability insurance in place                     |
|                              | x  |    | Other insurance in place                                 |

Comments:

*O&M Account*

The City has not established a Chart of Accounts for the bulk fuel facility that would track O&M revenues and costs. While all checks must be signed by two members of the City Council, and any check amount is subject to Council approval, there is no formal system in place for City approval of checks more than \$5000.

*R&R Account*

The City has not established an interest-bearing savings account for the bulk fuel facility's R&R funds.

*Budgets*

The City has just developed an annual budget for the bulk fuel facility as required in the Business Operating Plan, and there are plans to update it annually. Historically, the City Council has been provided with an annual report on bulk fuel facility expenses and revenues.

*Business Plan Updates*

At this time, there is no business plan update scheduled.

*Audit*

No audit has been performed in the past four years; the acting public utilities manager is aware that one needs to be done as soon as possible.

*Annual Report*

The bulk fuel facility provides the City Council with an annual report on expenditures and revenues. No information or report has been forwarded to the Denali Commission.

*Insurance*

Currently, the City participates in the AML/JIA insurance program which usually includes general liability, workers compensation, and some property/inventory coverage for City owned buildings and property.

## Personnel Management

| Yes                      | No | NA | Personnel Management Compliance Areas |
|--------------------------|----|----|---------------------------------------|
| <i>Facility Manager</i>  |    |    |                                       |
| x                        |    |    | Manager designated                    |
|                          | x  |    | Changes reported to Denali Commission |
| <i>Staffing Adequate</i> |    |    |                                       |
|                          | x  |    | Staffing adequate                     |
| <i>Training Plan</i>     |    |    |                                       |
|                          | x  |    | Training plan in place                |

Comments:

### *Facility Manager*

The Denali Commission has not been informed of the change in Utility management; there was no indication of replacing the acting public utilities manager with a permanent one anytime soon.

### *Staffing Adequate*

In the past there were two people staffing the positions of Public Utilities Manager and the Public Utilities Clerk. At this time both positions are staffed by one person. It appears there is need for additional staff to fulfill all the responsibilities and tasks of the financial and management operations of the Facility. With the recent hiring of a Fuel Operator the Bulk Fuel Facility operations responsibilities can be met.

### *Training Plan*

The acting Facility Manager felt he would benefit from follow up, perhaps one-on-one, to the Bulk Fuel Facility Managers training offered by the Alaska Energy Authority. He also indicated a need for further training in the areas of bookkeeping and computers.

**Operations Management**

| Yes  | No | NA | <i>Operations Management Compliance Areas</i> |
|--|----|----|---|
| <i>Facility Components in Good Working Order</i> |    |    |   |
| x  |    |    | Facility components in good working order     |
| <i>SPCC</i>                                      |    |    |   |
| x  |    |    | SPCC on-hand                                  |
| x  |    |    | SPCC current                                  |
| <i>Facility Response Plan</i>                    |    |    |   |
| x  |    |    | Plan on-hand                                  |
| x  |    |    | Plan current                                  |
| <i>Coast Guard Operations Manual</i>             |    |    |   |
| x  |    |    | Manual on-hand                                |
| x  |    |    | Manual current                                |

Comments:

*Facility Components in Good Working Order*

The acting public utilities manager reported the bulk fuel facility components to be in good working order.

*SPCC/Facility Response Plan/ Coast Guard Operations Manual*

The City has received its copies of the U.S. Coast Guard Operations Manual, U.S. EPA Spill Prevention Control and Countermeasure Plan (SPCC), and the EPA Facility Response Plan prepared by AEA. The manual and plans are current and up-to-date.

## RECOMMENDATIONS

The following table outlines the systems and procedures that should be addressed by the City, areas that may benefit from technical assistance/training, and operational areas requiring follow-up:

| <b>Systems and Procedures</b>  | <b>ASAP</b> | <b>Within year</b> | <b>Long Term</b> |
|--|-------------|--------------------|------------------|
| Develop a Chart of Accounts for the bulk fuel facility   | x           |                    |                  |
| Develop an effective system for collecting on overdue accounts                                     | x           |                    |                  |
| Develop financial policies & procedures to track and record O&M and R&R costs                      | x           |                    |                  |
| Establish an interest-bearing R&R fund account and begin making deposits                           | x           |                    |                  |
| Contact an auditor to establish a schedule for an audit  | x           |                    |                  |
| Develop procedures for completing & submitting annual reports                                      | x           |                    |                  |
| <b>Technical Assistance</b>  |             |                    |                  |
| Implement specifics of Bulk Fuel Facility Business Operating Plan                                  | x           |                    |                  |
| Provide additional assistance with bookkeeping   |             |                    | x                |
| Prepare and submit Denali Report   | x           |                    |                  |
| <b>Training</b>  |             |                    |                  |
| As new employees are hired provide appropriate classroom and hands-on training for their positions |             |                    | x                |
| The new Fuel Operator is to be trained in fuel operator skills                                     | x           |                    |                  |
| Update computer skills   |             | x                  |                  |
| <b>Operations</b>  |             |                    |                  |
| Familiarize operations staff with obligations and requirements of the Business Operating Plan      | x           |                    |                  |
| Schedule tasks for routine (O&M) maintenance   |             |                    | x                |
| Schedule tasks for non-routine (R&R) repair  |             |                    | x                |
| Maintain an inventory list for spill response materials and O&M parts                              |             | x                  |                  |

**FACILITY PHOTOS**

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Storage Facility.JPG



Tank Catwalk.JPG



Tanks.JPG



Steps2.JPG



Tanks2.JPG



Signage2.JPG



Steps.JPG



Piping.JPG



Piping2.JPG



Signage.JPG