ENGINEERING EVALUATION REPORT

PLANT NAME	**East Bay Municipal Utility District**
APPLICATION NUMBER	**1209**
PLANT NUMBER	**A0591**
DATE	**9 August 2000**

TITLE: GRAVITY BELT THICKENER/TITLE V MINOR MODIFICATION

1. BACKGROUND

Gravity Belt Thickener: This portion of the application is to complete the replacement of the 3 waste activated sludge (WAS) thickening centrifuges with gravity belt thickeners. Two of the GBTs were installed in 1999 under AN 27693. This application completes the replacement adding the third and last GBT. The source to be permitted in this application is:

S-173 Sludge Handling; GBT 13-West, Ashbrook Aquabelt 3.0 meter, Abated by A-7 Atomized Mist Scrubber

The purpose of the WAS thickening centrifuges and GBT's is to thicken waste activated sludge prior to its addition to the anaerobic sludge digestion process (S180). WAS is sludge that has settled in the bottom of the secondary clarifiers. The thickening process produces thickened sludge that is sent to the digesters and liquid that is returned to the secondary treatment process. The liquid is known as centrate when it is produced from centrifuges and filtrate when it is produced from GBT's. The goal of the thickening process is to make the solids concentration of the sludge as high as possible and the solids concentration of the liquid as low as possible. Sludge that is too watery is problematic for the digestion process. Liquid with excessive solids can cause settling problems in the secondary clarifiers – leading to poor plant effluent quality and the potential for NPDES permit violations.

GBT's were selected to replace WAS Thickening Sludge Centrifuges as they are significantly more solids recovery efficient (98% Vs 80%). Additionally, GBT's have fewer equipment problems and less down time for repairs than centrifuges. Power use is also expected to decrease significantly.

This final GBT S-173 replaces source S-181 (Sludge Thickening Centrifuge).

Title V Minor Modification

The Title V permit for this facility was issued on July 1, 1997. Since that time there have been several applications, all minor, for the following sources:

APPLICATION #	TITLE	SOURCE
19526	Paint Spray Booth	N / A-exempt
27693	GBTs (2)	S-171 / S-172
1068	Odor Scrubbers	A-461 / A-462
1209	GBT / Title V Rev (Minor Mod)	S-173

These applications will be incorporated into the existing Title V Permit. It should be noted that application # 17883 and 17415 (processed post-Title V, not listed above) were both for a condition modification to allow improved operating flexibility for the boilers and IC engine operations. These condition changes included the necessary Title V revisions and do not need attention in this permit application.

2. EMISSION CALCULATIONS

S-173 GBT –abated by A-7

S-173 gravity belt thickener has vapor emissions abated by A-7, an atomized mist scrubber. A-7 uses an aqueous caustic / sodium hypochlorite mixture to remove odorous compounds and a significant fraction of the remaining hydrocarbon vapors. Based on previous source testing for this abatement device, efficiencies ranged from 50 to 99%. For the purposes of this analysis, we will use an average abatement efficiency of 75%. Hence the abatement factor will be 0.25.

It should be noted that there is no increased throughput or emission factors as a result of this project. This project is to replace old obsolete equipment with new equipment. Hence there is no increase in emissions. The following information is presented to correct the emission factors in the databank.

Basis: 24 / 365 operation per annum

Uncontrolled Total Org emission factor: 4.9E-7 lb / gal
Uncontrolled Benzene emission factor: 1.7E-10 lb / gal
Uncontrolled Chloroform emission fac: 4.3E-8 lb / gal
Uncontrolled Methylene Chloride EF: 1.7E-8 lb / gal
Uncontrolled Perc emission factor: 7.3E-8 lb / gal
Uncontrolled POC emission factor: 2.6E-7 lb / gal

Controlled Emissions

POC Emissions = (2.6E-7 lb / gal)(1 GBT)(65700 gal / hr)(8760 hr / yr)(0.25 AF) = 37 lb / yr
Benzene Emissions = (1.7E-10 lb / gal) (1 GBT)(65700 gal / hr)(8760 hr / yr)(0.25 AF) = 0.025 lb / yr
Chloroform Emissions = (4.3E-8 lb / gal) (1 GBT)(65700 gal / hr)(8760 hr / yr)(0.25 AF) = 6.2 lb / yr
Methylene Chloride Emissions = (1.7E-8 lb / gal) (1 GBT)(65700 gal / hr)(8760 hr / yr)(0.25 AF) = 2.5 lb / yr
Perc Emissions = (2.2 E-9 lb / gal) (1 GBT)(65700 gal / hr)(8760 hr / yr)(0.25 AF) = 0.3 lb / yr

Abated Odorous Emissions: NH3: 0.1 lb / yr (per source test, applicant)
(Basis: 1 GBT) H2S: 28 lb / yr (per source test, applicant)

3. EMISSION SUMMARY

The actual emissions from the new GBT is not expected to be any higher than the previous WAS thickening centrifuges. However, an examination of the District database shows that the emissions from these operations were not being properly accounted for. These emissions will be corrected in the District databank.

Pollutant	Lb/day	Ton/yr
PM10	---	---
POC	**0.1**	**0.019**
NPOC	---	---
NOx	---	---
SO2	---	---
CO	---	---
Toxics	**0.02**	**0.0045**

4. PERMIT REQUIREMENTS/DISCUSSION OF EXEMPTION

There are no exemptions which apply to these sources.

4. APPLICABLE REQUIREMENTS

A. Toxic Evaluation:

The following table presents a comparison of the maximum controlled emissions from these sources along with the toxic trigger levels requiring a risk evaluation.

	Annual Emissions (lb/yr)	Trigger Level (lb/yr)
Benzene	0.025	6.7
Chloroform	6.2	36
Methylene Chloride	2.5	190
Perchloroethylene	<1	33

Since there is no increase in toxic emissions and since none of the toxic air contaminants are emitted at levels greater than the toxic trigger levels, no toxic risk evaluation is required.

B. Regulation 1 – General Provisions and Definitions

§1-301: Prohibits discharging emissions in quantities that cause injury, detriment, nuisance, or annoyance.

S-173: This operation is expected to continue to comply with 1-301.

C. Permits – General Requirements, Regulation 2 Rule 1

There is no increase in any toxic emissions as a result of this project. There are no significant toxic emissions from these operations and the source is not located with 1000 feet of the nearest school, and is therefore not subject to the public notification requirements of 2-1-412.

D. Permits – New Source Review, Regulation 2 Rule 2 (dated 10 / 7 / 98)

1. **BACT:** A BACT review is required for any new or modified source *which results in an emission from a new source or an increase in emissions from a modified source of precursor organic compounds (POC), non-precursor organic compounds (NPOC), nitrogen oxides (NOx), sulfur dioxide (SO2), PM10 or carbon monoxide (CO), in excess of 10.0 pounds per highest day*.

   Since the emissions of POC from this source is less than 10 lb / day, BACT is not required.

2. **Offset Requirements:** §2-2-303: Although facility-wide NOx emissions are greater than 100 tpy, there are no emissions increases. Hence, offsets are not required for this application.

3. **Prevention of Significant Deterioration:** §2-2-304: This facility is not a new major facility, nor is this application for a major modification. PSD requirements do not apply to this permit application.

E. Regulation 3 – Fees

EBMUD has complied with this requirement – by paying their application fees for this project. It is further expected that EBMUD will continue to comply with permit fee requirements.

F. Particulate Matter and Visible Emissions, Regulation 6

There are no particulate emissions from this source, hence Regulation 6 is not applicable

G. NSPS/NESHAPS

There is no New Source Performance Standard or National Emission Standard for Hazardous Air Pollutants that applies to this source.

H. CEQA

This project is considered to be ministerial under the District's CEQA Regulation 2-1-311. The engineering review for this project requires only the application of standard permit conditions and standard emissions factors and therefore is not discretionary as defined by CEQA. Chapter 19 of the Permit Handbook deals with POTWs.

5. CONDITIONS

Recommend the following permit conditions for S-173.

S-173 Sludge Handling; GBT 13-West, Ashbrook Aquabelt 3.0 meter, Abated by A-7 Atomized Mist Scrubber

1. Throughput

   EBMUD shall monitor and record on a daily basis the activated sewage sludge throughput through S-173. (Basis: Cumulative Increase)

2. Abatement

   All vapor emissions from S-173 shall be routed under negative pressure to A-7 Atomized Mist Scrubber.
   (Basis: Cumulative Increase)

3. A-7 Atomized Mist Scrubber shall be properly maintained and kept in good operating condition at all times.
   (Basis: Regulation 2-1-403)

4. Records

   To demonstrate compliance with the above conditions, EBMUD shall keep and maintain the following records in a District approved log:
   (Basis: Reg 8-19-501)

   a. Records or all inspections and all maintenance work on A-7. Records of each inspection shall consist of a log containing the date of inspection and the initials of the personnel that inspected A-7.

b. Records noting the occurrence and duration of any malfunction of A-7, including the date, the suspected cause of the malfunction, and any action taken to restore normal operation.

c. All records shall be retained on-site for 24 months from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations.

6. RECOMMENDATIONS

Recommend issuance of a conditional Authority to Construct and Permit to Operate for:

S-173 Sludge Handling; Gravity Belt Thickener (west), Ashbrook Aquabelt 3.0 meter, Abated by A-7 Atomized Mist Scrubber

Condition # 17399 (S-173)

7. TITLE V REVIEW

This application will also include a minor modification of the existing Title V Permit for EBMUD. This minor modification will include the following permit applications AN 1068 (Odor scrubber replacement), AN 19526 (paint spray booth), AN 27693 (gravity belt thickener installation), AN 1209 (gravity belt thickener installation).

The GBTs installed in applications 27693 and 1209 were to replace portions of existing equipment – the WAS Thickeners (S-170 and S-181). A portion of S-170 was kept and hence the source was renamed S-170 Sludge Handling, Dewatering Centrifuges. S-181 will be completely replaced by S-173. References to S-170 need to be modified in the Title V permit and all references to S-181 need to be deleted from the Title V application. Applicable conditions need to be added, including 16810 (for S-171 and S-172) and 17399 for S-173.

In the case of AN 19526 for a paint spray booth, the source (not identified with an S #) is exempt per Regulation 2-1-119.2. Hence no further attention is needed for this source.

Application 1068 was for the replacement of an existing abatement device A-5 with two new scrubers A-461 and A-462. All appropriate changes will be entered into the Title V permit.

by: _____

Randy E. Frazier, P.E.

ENGINEERING EVALUATION REPORT

PLANT NAME	**East Bay Municipal Utility District**
APPLICATION NUMBER	**27693**
PLANT NUMBER	**A0591**
DATE	**October 18, 1999**

1. BACKGROUND

This application is for an A/C and P/O to replace 2 waste activated sludge (WAS) thickening centrifuges listed under S-170 *Sludge handling; 2 Centrifuges (Thickening), 4 Centrifuges (Dewatering)*. The sources to be permitted in this application are as follows:

S171 **Sludge Handling; GBT 11-East, Ashbrook Aquabelt 3.0 meter, Abated by A7 Atomized Mist Scrubber**

S172 **Sludge Handling; GBT 12-Center, Ashbrook Aquabelt 3.0 meter, Abated by A7 Atomized Mist Scrubber**

The purpose of the WAS thickening centrifuges and GBT's is to thicken waste activated sludge prior to its addition to the anaerobic sludge digestion process (S180). WAS is sludge that has settled in the bottom of the secondary clarifiers. The thickening process produces thickened sludge that is sent to the digesters and liquid that is returned to the secondary treatment process. The liquid is known as centrate when it is produced from centrifuges and filtrate when it is produced from GBT's. The goal of the thickening process is to make the solids concentration of the sludge as high as possible and the solids concentration of the liquid as low as possible. Sludge that is too watery is problematic for the digestion process. Liquid with excessive solids can cause settling problems in the secondary clarifiers – leading to poor plant effluent quality and the potential for NPDES permit violations.

GBT's were selected to replace WAS Thickening Sludge Centrifuges as they are significantly more solids recovery efficient (98% Vs 80%). Additionally, GBT's have fewer equipment problems and less down time for repairs than centrifuges. Power use is also expected to decrease significantly.

It should be noted that S171 was installed without a permit application in 1998 and has been charged accordingly (late and retroactive fees). S172 will be installed in October, 1999. Existing source S181 (Sludge Thickening Centrifuge) will be replaced with a new GBT in 2000. S173 will be a GBT to replace S181 in 2000.

With the removal of the sludge centrifuges from S170, the description of S170 will be changed to the following:

S170 **Sludge Handling; Dewatering Centrifuges (4)**

S170 will continue to be a part of the process with air emissions vented to A7

2. EMISSION CALCULATIONS

S171 and S172 GBT's – both abated by A7

Both gravity belt thickeners have vapor emissions that are abated by A7, an atomized mist scrubber. A7 uses an aqueous caustic/sodium hypochlorite mixture to remove odorous compounds and a significant fraction of the remaining hydrocarbon vapors. Based on previous source testing for this abatement device, efficiencies ranged from 50 to 99%. For the purposes of this analysis, we will use an average abatement efficiency of 75%. Hence the abatement factor will be 0.25.

It should be noted that there is no increased throughput or emission factors as a result of this project. This project is to replace old obsolete equipment with new equipment. Hence there is no increase in emissions. The following information is presented with a goal of revising the emission factors in the databank.

Basis: 24/365 operation per annum

Uncontrolled Total Org emission factor: 4.9E-7 lb/gal
Uncontrolled Benzene emission factor: 1.7E-10 lb/gal
Uncontrolled Chloroform emission fac: 4.3E-8 lb/gal
Uncontrolled Methylene Chloride EF: 1.7E-8 lb/gal
Uncontrolled Perc emission factor: 7.3E-8 lb/gal
Uncontrolled POC emission factor: 2.6E-7 lb/gal

Controlled Emissions

POC Emissions = (2.6E-7 lb/gal)(2 GBTs)(65700 gal/hr)(8760 hr/yr)(0.25 AF) = 75 lb/yr
Benzene Emissions = (1.7E-10 lb/gal)(2 GBTs)(65700 gal/hr)(8760 hr/yr)(0.25 AF) = 0.05 lb/yr
Chloroform Emissions = (4.3E-8 lb/gal) (2 GBTs)(65700 gal/hr)(8760 hr/yr)(0.25 AF) = 12.4 lb/yr
Methylene Chloride Emissions = (1.7E-8 lb/gal) (2 GBTs)(65700 gal/hr)(8760 hr/yr)(0.25 AF) = 4.9 lb/yr

Perc Emissions = (2.2 E-9 lb/gal) (2 GBTs)(65700 gal/hr)(8760 hr/yr)(0.25 AF) = 0.6 lb/yr

Abated Odorous Emissions: NH3: 0.2 lb/yr (per source test, applicant)
(Basis: 2 GBT's) H2S: 55.6 lb/yr (per source test, applicant)

4. EMISSION SUMMARY

The actual emissions from the new GBT's are not expected to be any higher than the previous WAS thickening centrifuges. However, an examination of the District database shows that the emissions from these operations were not being properly accounted for. These emissions will be corrected in the District databank.

Pollutant	Lb/day	Ton/yr
PM10	---	---
POC	**0.21**	**0.0375**
NPOC	---	---
NOx	---	---
SO2	---	---
CO	---	---
Toxics	**0.05**	**0.0090**

4. PERMIT REQUIREMENTS/DISCUSSION OF EXEMPTION

There are no exemptions which apply to these sources.

4. APPLICABLE REQUIREMENTS

A. Toxic Evaluation:

The following table presents a comparison of the maximum controlled emissions from these sources along with the toxic trigger levels requiring a risk evaluation.

	Annual Emissions (lb/yr)	Trigger Level (lb/yr)
Benzene	0.05	6.7
Chloroform	12.4	36
Methylene Chloride	4.9	190
Perchloroethylene	<1	33

Since there is no increase in toxic emissions and since none of the toxic air contaminants are emitted at levels greater than the toxic trigger levels, no toxic risk evaluation is required.

B. Regulation 1 – General Provisions and Definitions
§1-301: Prohibits discharging emissions in quantities that cause injury, detriment, nuisance, or annoyance.

S171: This operation is expected to continue to comply with 1-301.
S172: This operation is also expected to continue to comply with 1-301.

C. Permits – General Requirements, Regulation 2 Rule 1
There is no increase in any toxic emissions as a result of this project. There are no significant toxic emissions from these operations and the source is not located with 1000 feet of the nearest school, and is therefore not subject to the public notification requirements of 2-1-412.

D. Permits – New Source Review, Regulation 2 Rule 2 (dated 10/7/98)

1. **BACT:** A BACT review is required for any new or modified source *which results in an emission from a new source or an increase in emissions from a modified source of precursor organic compounds (POC), non-precursor organic compounds (NPOC), nitrogen oxides (NOx), sulfur dioxide (SO2), PM10 or carbon monoxide (CO), in excess of 10.0 pounds per highest day*.

Since the emissions of POC from these sources are less than 10 lb/day (per source and per both sources), BACT is not required.

2. **Offset Requirements:** §2-2-303: Although facility-wide NOx emissions are greater than 100 tpy, there are no emissions increases. Hence, offsets are not required for this application.

4. **Prevention of Significant Deterioration:** §2-2-304: This facility is not a new major facility, nor is this application for a major modification. PSD requirements do not apply to this permit application.

F. Regulation 3 – Fees

EBMUD has complied with this requirement – by paying their application fees for this project. It is further expected that EBMUD will continue to comply with permit fee requirements.

F. Particulate Matter and Visible Emissions, Regulation 6

There are no particulate emissions from this source, hence Regulation 6 is not applicable

G. NSPS/NESHAPS

There is no New Source Performance Standard or National Emission Standard for Hazardous Air Pollutants that applies to this source.

H. CEQA

This project is considered to be ministerial under the District's CEQA Regulation 2-1-311. The engineering review for this project requires only the application of standard permit conditions and standard emissions factors and therefore is not discretionary as defined by CEQA. Chapter 19 of the Permit Handbook deals with POTWs.

5. CONDITIONS

Recommend the following permit conditions for S171 and S172.

S171 Sludge Handling; GBT 11-East Ashbrook Aquabelt 3.0 meter, Abated by A7 Atomized Mist Scrubber

S172 Sludge Handling; GBT 12-Center, Ashbrook Aquabelt 3.0 meter, Abated by A7 Atomized Mist Scrubber

1. Throughput

EBMUD shall monitor and record on a daily basis the activated sewage sludge throughput through S171 and S172. (Basis: Cumulative Increase)

2. Abatement

All vapor emissions from S171 and / or S172 shall be routed under negative pressure to A7 Atomized Mist Scrubber. (Basis: Cumulative Increase)

3. A7 Atomized Mist Scrubber shall be properly maintained and kept in good operating condition at all times. (Basis: Regulation 2-1-403)

4. Records

To demonstrate compliance with the above conditions, EBMUD shall keep and maintain the following records in a District approved log: (Reg 8-19-501)

a. Records or all inspections and all maintenance work on A7. Records of each inspection shall consist of a log containing the date of inspection and the initials of the personnel that inspected A7.
b. Records noting the occurrence and duration of any malfunction of A7, including the date, the suspected cause of the malfunction, and any action taken to restore normal operation.
c. All records shall be retained on-site for 24 months from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations.

6. RECOMMENDATIONS

Recommend issuance of a conditional Authority to Construct and Permit to Operate for:

S171 Sludge Handling; Gravity Belt Thickener (east), Ashbrook Aquabelt 3.0 meter, Abated by A7 Atomized Mist Scrubber

S172 Sludge Handling; Gravity Belt Thickener (center), Ashbrook Aquabelt 3.0 meter, Abated by A7 Atomized Mist Scrubber

Condition # 16810 (S171, S172)

by: _____

Randy E. Frazier, P.E.

ENGINEERING EVALUATION REPORT

PLANT NAME	**East Bay Municipal Utility District**
APPLICATION NUMBER	**1068**
PLANT NUMBER	**A0591 (591)**
DATE	**25 May 2000**

1. BACKGROUND

This application is for an Authority to Construct/Permit to Operate for a series of odor scrubbers to replace A-5 H2S Wet Scrubber (currently abating S-46 and S-110). S-46 Influent Pump Station is part of S-110 and will be archived. The new scrubbers and emission points are as follows:

S-110 A-461, A-462

The new scrubbers being installed are much more efficient than the previous – being carbon adsorption based rather than wet. The abatement efficiency is expected to go from 80% at current to around 99% with the carbon bed system. The conditions will be revised appropriately. The current permit condition is #2409.

S-110 source description will be clarified to read as follows:

S-110 Headworks; IPS, Barscreens, ducted to/abated by A-461 and/or A-462

2. EMISSION CALCULATIONS

Odorous Compound Emissions from A1 Scrubber:

Average Scrubber H_2S Removal Efficiency: 99% (design basis)
Ventilation System Design Rate: 40,000 cfm (18,000 + 22,000)

H_2S Inlet Concentration: 5 ppm
Design Dry Weather Flowrate: 7 MM gpd

H_2S Emissions (uncontrolled) = [40,000 cu ft/min][525600 min/yr][5 cu ft /1E6 cu ft][lb-mole/359 cu ft][34.26 lb/lb-mole] = 10032 lb/yr (27.48 lb/day)

Emission factor = [27.5 lb/day]/[7.5 MM gpd] = 0.367 lb/MM gal

H_2S Emissions (controlled) = [40,000 cu ft/min][525600 min/yr][5 cu ft /1E6 cu ft][1 – 0.99][lb-mole/359 cu ft][34.26 lb/lb-mole] = 100.3 lb/yr (0.275 lb/day)

H_2S Emissions (reduction) = [40,000][525600][5/1E6][0.2-0.01][1/359][34.26] = 1906 lb/yr (previous controlled emission was 2006 lb/yr)

Although there is an expected reduction in H2S emissions, this will not be accounted for in the District databank. These emissions are not criteria pollutants.

3. PERMIT REQUIREMENTS/DISCUSSION OF EXEMPTION

This application is submitted as part of EBMUD's master odor control plan and not due to any statutory requirement. Therefore, exemptions/exclusions are not applicable.

4. BEST AVAILABLE CONTROL TECHNOLOGY

Not applicable as emissions are less than 10 lb/day.

5. OFFSETS

Not applicable.

6. TOXIC EVALUATION

Acute Toxics/Odorous Compounds: The compounds of concern for acute exposure is hydrogen sulfide. The threshold for concern is 8110 lb/yr. Since the H_2S emissions are reduced and the toxic threshold is not exceeded, no further analysis is needed.

7. STATEMENT OF COMPLIANCE

- Regulation 1: This replacement of abatement equipment will assist the facility in complying with the nuisance, annoyance or detriment provisions of Reg 1-301.
- Regulation 2: This facility complies with permitting requirements including BACT (not applicable), offsets (not applicable), and PSD (not applicable). No public notification is required as there is no school within 1000 ft of the project. Toxic risk levels are not significant warranting any further analysis.
- Fees: A permit fee was submitted and appropriately logged in at the District (log # 22584)
- Particulate Emissions (Reg 6): Not applicable.
- NSPS/NESHAPS: There is no NSPS or National Emission Standard for Hazardous Air Pollutants that apply to this source.
- CEQA: This project is considered to be ministerial under the District's CEQA Regulation 2-1-312.2 (installation of air pollution control or abatement equipment).
- Title V: A Title V revision incorporating the changes due to this application will be included in permit application 1209 (Gravity Belt Thickener).

8. CONDITIONS

Condition 2409 will be revised to improve monitoring.

9. RECOMMENDATIONS

Revise Condition 2409 to remove reference to S-46 and establish New Permit Condition for S-110 as follows:

New Condition #: **17335**

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For   S-110, Headworks; IPS, Barscreens, ducted to/abated
      by A-461 and/or A-462

*1.  Source S-110 shall be abated at all times by A-461
     and/or A-462 carbon adsorber(s) to control emissions
     of H2S unless the abatement device is removed from
     service for maintenance or regeneration purposes.
     Periods of operation without the use of A-461 or
     A-462 shall be minimized.
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(Basis: BAAQMD Regulation 2-1-403)

*2. To ensure good H_2S abatement efficiency, EBMUD shall replace or regenerate the carbon adsorption bed in A-461 and/or A-462 upon determination that breakthrough is imminent or has been reached. (Basis: BAAQMD Regulation 2-1-403)

*3. To ensure compliance with Condition 2, the inlet and outlet H_2S concentrations, as well as any other appropriate operating parameters shall be continuously monitored and reviewed on a daily basis to determine when carbon adsorption bed breakthrough is imminent or has been reached. (Basis: BAAQMD Regulation 2-1-403)

*4. Monitoring records shall be kept and maintained to document periods of shutdown of A-461 or A-462 and to demonstrate compliance with Conditions 2 & 3 above. (Basis: BAAQMD Regulation 2-1-403)

*5. If the District receives more than five confirmed odor complaints within one month, the EBMUD shall take immediate action to remedy the odor problem. (Basis: BAAQMD Regulation 2-1-403)

By: _____

Randy E. Frazier, P.E.
25 May 2000