

**BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.**

In re: Guam Waterworks Authority) Agana) Sewage Treatment Plant) NPDES Permit No. CA 0020087)	NPDES Appeal Nos. 09-15 and 09-16 Index to the Administrative Record
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FINAL DECISION ADMINISTRATIVE RECORD

I. Final Decision

1-71 **Agana STP Final Decision Document (FDD), September 30, 2009¹**

II. Tentative Decision & Final Notice Materials

72-138 **Agana STP Tentative Decision Document (TDD), January 5, 2009**
139-142 Agana STP TDD Fact Sheet
143-144 Agana STP Notice of Tentative Decision, January 23, 2009
145-147 **Agana STP Notice of Public Hearing and Comment Period Extension, 4/19/
2009**
148 Agana STP Press Release, January 7, 2009
149 Agana STP Media Advisory, May 27, 2009
150-157 Copy of EPA NPDES webpage, showing posting of public notices

158-159 Agana STP Notice of Final Decision, October 1, 2009
160-161 FDD certificate of service
162-207 **Response to comments**
208-209 FDD press release, October 1, 2009

III. Public Hearing Materials

210-211 Formal request by Guam Waterworks Authority (GWA) for comment period
extension, January 26, 2009
212 EPA response to GWA granting extension, February 24, 2009
213-280 EPA Public Hearing on Tentative Decisions transcript, June 3, 2009
281-289 EPA Public Hearing Powerpoint Presentation, June 3, 2009
290-291 Public Hearing Informational Sheet for Agana and Northern District variances
292 Public Workshop and Hearing Sign, June 3, 2009

¹ Documents marked in **bold** are provided in Exhibits

IV. Comments Received

- 296-302 GWA Powerpoint Presentation to EPA regarding waivers, June 3, 2009
- 303-306 Speaker Forms
- 307-308 Comment Form – John Stein
- 309-335 GWA Formal Comments regarding Agana STP
- 336 Guam Environmental Protection Agency (GEPA) Position Statement, 6/3/2009
- 337 E-mailed Comments from Paul Tobiason, January 8, 2009
- 338 E-mailed Comments from Joe Payne, January 9, 2009
- 339-341 E-mailed Comments from Berrie Straatmans, January 11, 2009
- 342 E-mailed Comments from Greg Mesa, May 27, 2009
- 343 E-mailed Comments from William Tracey, May 29, 2009
- 344-346.5 E-mailed Comments from Senator Thomas Ada, June, 23, 2009
- 347 E-mailed Comments from Michael Park, June 28, 2009
- 348-350 E-mailed Comments from Ken Rekdahl, June 28, 2009
- 351 E-mailed Comments from J.R. Cruz, June 30, 2009

V. Electronic Copy of Newspaper articles regarding Guam 301(h) tentative decisions.

- 352 January 8, 2009 (1 article)
- 353-354 January 8, 2009 (2 articles)
- 355-358 January 8, 2009 (1 video link & 1 article) and January 8, 2009 (1 article)
- 359-365 January 9, 2009 (1 article), January 8, 2009 (1 article), January 9, 2009 (1 article), and January 8, 2009 (1 article)
- 366-368 January 10, 2009 (2 articles)
- 369-370 January 27, 2009 (1 article)
- 371-372 January 28, 2009 (1 article)
- 373-374 January 28, 2009 (2 articles)
- 375-389 March 26, 2009 (1 article & press conference presentation attachment)
- 390-392 March 27, 2009 (1 article) and March 26, 2009 (2 articles)
- 393-394 April 8, 2009 (1 article)
- 395-396 April 30, 2009 (1 article)
- 397-398 May 28, 2009 (2 articles)
- 399-401 May 29, 2009 (2 articles) and May 28, 2009 (1 article)
- 402-403 June 4, 2009 (1 article)
- 404-406 June 25, 2009 (2 articles) and June 24, 2009 (1 article)
- 407-407.5 June 30, 2009 (1 article)

VI. Other 301(h) Tentative and Final Decision Documents

- 408-517 City and County of Honolulu, Sand Island, Final Decision Document
- 518-667 City and County of Honolulu, Honouliuli, Final Decision Document
- 668-756 American Samoa Power Authority, Tafuna, Tentative Decision Document

- 757-841 American Samoa Power Authority, Utulei, Tentative Decision Document
- 842-949 City of San Diego, E.W. Blom Point Loma Metropolitan Wastewater Treatment and Ocean Outfall, Tentative Decision Document
- 950-1000 Monitoring Study Review, Puerto Rico Aqueduct and Sewer Authority (PRASA) 301(h) Ocean Discharges

VII. Summaries of Meetings with EPA Region 9, NPDES Permits Office

- 1001-1002 Teleconference Call with GWA on February 12, 2009
- 1003-1013 Teleconference Call with Guam Delegation on March 23, 2009
- 1014 Teleconference Call with GWA on April 2, 2009
- 1015-1016 Trip Report and Discussions with GWA on June 1 to 4, 2009

VIII. E-mail Correspondences during Comment Period

- 1017-1087 Email Correspondences

IX. Monitoring Data

- 1088-1092 Updated TSS and BOD DMR Data Set (EPA-generated through ICIS)
- 1093-1153 First Quarter FY 2009 Wastewater Operations & Maintenance Progress Report (GWA)
- 1154-1214 Second Quarter FY 2009 Wastewater Operations & Maintenance Progress Report (GWA)
- 1215-1268 Third Quarter FY 2009 Wastewater Operations & Maintenance Progress Report (GWA)

X. Other

- 1269-1291 Final Decision Document regarding Public Utility Agency of Guam, Agana and Northern District STPs, June 30, 1986
- 1292-1303 Final Decision Document regarding PUAG, Agana and Northern District STPs, Signed Cover Sheet, Briefing Sheet, and Fact Sheet

TENTATIVE DECISION ADMINISTRATIVE RECORD

I. Introduction/Decision Criteria

- 1304 Introduction/decision criteria
- 1305-1314 Agana STP renewal application, December 28, 1990
- 1315-1369 EPA Guidance Document: Primer for Municipal Wastewater Treatment Systems, EPA 832-R-04-001
- 1370-1371 EPA Guidance Document: Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001

- 1372-1373 EPA Guidance Document: Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, EPA/600/R-95/136
- 1374 Correspondence re: Guam Environmental Protection Agency 1991 Concurrence
- 1375-1416 Northern District 1998 Revised Application
- 1417- 1758 June 30, 2000 Supplement to Revised Application**
- 1789-2058 March 27, 1998 Revised Application**
- 2059-2178 Guam Water Quality Standards**
- 2179-2565 Amended Section 301(h) Technical Support Document (301(h) ATSD)**

II. Description of Treatment System

a. Background

- 2566 Background title page
- 2567 Description of Treatment title page
- 2568-2589 Agana NPDES Permit**
- 2590-2609 1988 Administrative Order, Docket No IX-FY88-45
- 2610-2611 Agana and Northern District NPDES permit cover pages

Correspondences between EPA and GWA/PUAG

- 2612-2612.5 Aug 6, 1990 EPA letter
- 2613 Dec 28, 1990 GWA letter
- 2614-2615 March 6, 1991 GWA letter
- 2616 April 19, 191 PUAG letter
- 2617-2619 Jan 27, 1992 EPA letter
- 2620-2622 Oct 6, 1992 EPA letter
- 2623-2625 Dec 7, 1992 EPA letter
- 2626-2637 Jan 26, 1993 PUAG letter
- 2638 Sept 7, 1993 PUAG letter
- 2639-2641 Feb 22, 1995 EPA letter
- 2642-2643 March 10, 1995 EPA letter
- 2644-2646 Nov 27, 1995 EPA letter
- 2647-2652 April 4, 1997 EPA letter**
- 2653-2656 May 6, 1997 PUAG letter
- 2657-2658 June 1, 1997 EPA letter
- 2659-2662 Mar 27, 1998 GEPA letter
- 2663 April 9, 1998 GEPA letter
- 2664-2665 April 21, 1998 EPA letter**
- 2666-2371 May 6, 1997, PUAG letter
- 2672 July 16, 1998 EPA letter
- 2673-2674 Aug 7, 1998 GWA letter
- 2675-2679 Oct 14, 1998 GWA letter
- 2680-2681 EP A letter
- 2682-2683 Jan 15, 1999 GWA letter
- 2684-2686 Aug 11, 1999 EPA letter
- 2687-2698 Sept 15, 1999 GWA letter

2699-2700 June 30, 2000 GWA letter
2701-2702 Feb 5, 2001 GWA letter
2703 Hagatna Basis of Design cover page
2704 Northern District Basis of Design cover page
2705-2706 Jan 18, 2002 EPA letter
2707-2708 Dec 20, 2004 EPA letter
2709-2710 March 30, 2006 letter
2711-2712 April 11, 2006 email
2713-2729 July 7, 2006 GWA letter
2730-2732 March 24, 2008 EPA letter

2733-2849 Agana STP Basis of Design Report

2850 Treatment System cover page
2851-2909 Scoping Meeting Summary Report for Marine Relocation to Guam
2910-2985 2006 Master Plan Volume III Ch. 5
2986-2995 Proposed Outfall Schematics, GMP Associates Inc.

III. Description of Receiving Water

2996-2997 *Description of Receiving Water*
2998-3201 Dominant Current Character, H.D. Huddell *et al*: Nearshore currents and coral reef ecology of the West Coast of Guam, Mariana Islands, 1971

3202 *Stratification*
3203 Coral Reefs
3204-3259 E.A. Matson: Fecal Pollution in Guam's Coastal Waters and Sediments, 1993
3260-3379 Dames and Moore: Impact Assessment of Non-Chlorinated Effluent from Agana and Northern District

3380 *Physical Characteristics of the Discharge*
3381 *Initial Dilution*
3382-3574 Dilution Models for Effluent Discharges, 3rd Edition EPA 1994
3575-3577 EPA (Frick) Model runs
3578-3594 Frick, Lee and Remegio email correspondence

3595 Application of Initial Dilution to WQS
3596-3598 Lee and GWA email correspondence

3599 *Zone of Initial Dilution*

V. Application of Statutory and Regulatory Criteria

3600 *Application of Statutory and Regulatory Criteria*
3601 Attainment of Primary or Equivalent Treatment Requirements
3602-3608 Measurement Report 2005 to 2008 DMR Data

- 3609-3688 GWA Wastewater Operations and Maintenance Progress Report
 3689-3691 **Bimonthly, seasonal, biannual rate change adjustment spreadsheet for BOD & TSS removal performed by EPA, March 2008**
- 3692 *Attainment of Water Quality Standards related to BOD, TSS, and Turbidity.*
 3693 *Dissolved Oxygen*
 3694 Analysis based on monitoring data
 3695 Memo to File: Presentation and analysis of submitted dissolved oxygen (DO) field monitoring data
- 3696-3698 Memo to File: Determining dissolved oxygen (DO) saturation concentration at 75%
- 3698 Field monitoring data for Attainment of Water Quality Standards related to BOD, TSS, and Turbidity Section collected by Agana STP and reformatted by EPA, May 2008
- 3699 *Dissolved Oxygen Analysis based on predictive modeling*
 3700-3701 Memo to File: Selection of critical DO concentration for initial dilution and DO depression predictive modeling
- 3702 *DO depression due to BOD exertion*
 3703-3707 Spreadsheets of used parameters and calculation by EPA to determine DO, created by EPA, May 2008
- 3708 DO depression due to sediment oxygen demand
 3709 Spreadsheet of used parameters and calculation by EPA to determine DO, created by EPA, May 2008
- 3710 DO depression due to abrupt sediment resuspension
 3711 Spreadsheet of used parameters and calculation by EPA to determine DO, created by EPA, May 2008
- 3712 Suspended solids and turbidity
 3713 *Suspended Solids Following Initial Dilution*
 3714 *Suspended Solids Deposition*
 3715-3717 Metcalf and Eddy: Wastewater Engineering: Treatment, Disposal and Reuse.1991. pg 222
- 3718 *Mass Emission Rate*
 3719-3720 Memo to File: Calculating Mass Emission Rate for Suspended
- 3721 *Settling velocities and organic component of settleable solids*
 3722-3723 Memo to File: Settling Velocities and Organic Component of Settleable Solids
- 3724 *Depositional Distances*
 3725-3726 Memo to File: Calculation of Depositional Maximum Distances 301(h) ATSD (found in *Introduction/Decision Criteria*)
- 3727 *Contour Area*
 3728-3729 Memo to File: Calculation of Depositional Contour Area

- 3730 *Deposition and Accumulation Rates*
- 3731-3741 Maughn and Oviat: Sediment and benthic response to wastewater solids in the marine mesocosm. 1993
- 3742-3743 Memo to File: Calculating Mass Deposition and Accumulation Based on MER and Area
- 3744 *Turbidity*
- 3745 Receiving Water Monitoring Turbidity Data from the application (April 1989 to July 1997)
- 3746 Attainment of Other WQS, Impact of Discharge on Public Water Supplies, Shellfish, Fish and Wildlife, and Recreation
- 3747 *Attainment of Other WQS and Criteria-*
- 3748 *Bacteria*
- 3749-3757 Miescier and Cabelli: Enterococci and other microbial indicators in municipal wastewater effluents, 1982
- 3758 *Toxics*
- 3759-3785 Annual Toxic Pollutant Analysis 1998 by Montgomery Watson
- 3786 *pH*
- 3787 pH Field Data
- 3788 *Nutrients*
- 3789 Receiving Water Monitoring Nutrients Data from the application (April 1989 to December 1989)
- 3790-3797 EPA Reference Monitoring and Assessing Water Quality website, accessed on October 3, 2008
- 3798 *Temperature*
- 3799 Receiving Water Monitoring Temperature Data from the application (April 1989 to July 1997)
- 3800 *Salinity*
- 3801 Receiving Water Monitoring Salinity Data from the application
- 3802-3803 Remigio, Lee, Minas (GEPA) e-mail correspondence
- 3804 *Whole Effluent Toxicity (WET)*
- 3805 **EPA Guidance Document: *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, 1995***
- 3806-3824 WET Bioassay Lab Result by MWH , Jan 10, 2008
- 3825-3827 Lee, Remegio emails

- 3828-3829 Lee, Remigio, and Sian-Denton (GWA) email correspondence
 3830-3853 WET Bioassay Lab Result by MWH Nov 12, 2007
 3854-3872 WET Bioassay Lab Result by MWH , Jan 10, 2008
- 3873 *Impact of Discharge on Public Water Supplies*
- 3874 *Impact of Discharge on Shellfish, Fish, and Wildlife-*
 3875-3877 **Technical Support Document for Water Quality-based Toxics Control (TSD), 1991**
- 3878 *Review of Chemical-specific Data*
- 3879 *Review of WET Data*
 3880-4058 **USEPA R9 and R10 WET Guidance 2007**
 4059-4060 Grothe *et al*: Whole effluent toxicity testing: An evaluation of methods and prediction of receiving system impacts, 1995.
- 4061 *Review of Biological Data*
 4062-4094 Boyd: Review and Analysis of Past Biological Monitoring Data for the Agana Wastewater Treatment Plant Outfall, Guam, 1998
- 4095-4171 **2007 Baseline Benthic Community Studies**
 4172-4246 **2001 Baseline Benthic Community Studies**
- 4247 *Impact of Discharge on Recreational Activities*
 4248-4469 Testing the Waters 2004: A Guide to Water Quality at Vacation Beaches, NRDC
 4470-4748 Testing the Waters 2005: A Guide to Water Quality at Vacation Beaches, NRDC
- 4749 *Establishment of a Monitoring Program*
 4750-4752 Lee and GWA e-mail correspondence
 4753-4831.5 GWA Operation and Maintenance Quarterly Reports, April 28, 2008
 4832-4914 GWA Operation and Maintenance Quarterly Reports, January 28, 2008
- 4915 Impact of Modified Discharge on Other Point and Non-point Sources
 4916 Unitek Environmental WWTP Google Earth Pro Image- *Google Earth Pro 4.2.0205.5730*
- 4917-4922 Remigio and Cummings-Gutierrez email correspondence
- 4923 *Toxics Control Program*
 4924 *Urban Area Pretreatment Program*
 4925 Increase in Effluent Volume or Amount of Pollutants Discharged
 4926 Public Information on Guam Military Buildup Website Link
 4927 Additional Requirements for Applications
 4928 Compliance with Other Applicable Laws

4929-4931 March 24, 2008 EPA Letter to GEPA for 301(h) application
concurrence/certification

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WASHINGTON, D.C.**

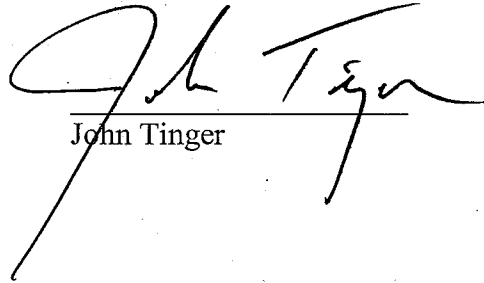
In re: Guam Waterworks Authority) Agana & Northern District) Sewage Treatment Plants) NPDES Permit No. CA 0020087) CA 0020141)	NPDES Appeal Nos. 09-15 and 09-16
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Certification of Indexes to the Administrative Record

I, John Tinger, state the following:

1. I am an Environmental Engineer employed by the U.S. Environmental Protection Agency, Region 9 ("EPA Region 9") in San Francisco, CA. Since December 2001, I have been employed in EPA Region 9's Water Division.
2. As part of my responsibilities, I oversaw compilation of the administrative records of materials on which the EPA Region 9 Acting Regional Administrator Laura Yoshii based her decision dated September 30, 2009 regarding applications filed by Guam Waterworks Authority for its Agana and Northern District Sewage Treatment Plants for renewed National Pollutant Discharge Elimination System permits with modifications of the secondary treatment requirements pursuant to Section 301(h) of the Clean Water Act. The materials comprising the administrative records for these decisions have been compiled, paginated, and listed in the attached Indexes to the Administrative Records.
3. Attached as exhibit A is the Index to the Administrative Record for the Agana decision. Attached as exhibit B is the Indexes to the Administrative Record for the Northern District decision.
4. For convenience, the documents are loosely grouped by subject matter in general categories as they relate to the tentative and final decisions. In some circumstances certain documents related to a specific subject area are found in another section and are referenced to that section rather than copied. Each document is given a number identifying the treatment plant ("A", Agana or "ND", Northern District), whether it's from the tentative or final decision ("T" or "F"), the general category, and the number for the specific document.
5. I certify that, to the best of my knowledge, the documents listed in the attached Indexes constitute the complete Administrative Records for these permitting actions.

I declare under penalty of perjury that the foregoing is true and correct. Executed this 10th day of March 2010, at San Francisco, California.


John Tinger