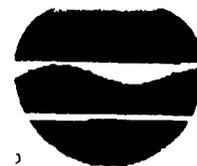


**ADDENDUM
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
WORK PLAN FOR
GRUMMAN AEROSPACE CORPORATION
BETHPAGE, NEW YORK**



Thomas C. Jorling
Commissioner

NOV 6 1990

John H. Ohlmann, P.E.
Director
Corporate Environmental Protection
Grumman Corporation
Bethpage, NY 11714-3580

Dear Mr. Ohlmann:

Re: Grumman Aerospace Corporation
Site #130003

Please be advised that the Work Plan for the upcoming RI/FS at the above-referenced site is approved by the Department.

The following documents comprise this approved Work Plan:

1. "Remedial Investigation/Feasibility Study Work Plan, Grumman Aerospace Corporation, Bethpage, New York" by Geraghty & Miller, Inc., dated March 1990.
2. "Letter of Addendum" signed by John Barnes (DEC) and John Ohlmann (Grumman). The date on this document is May 16, 1990.
3. Letter from Scott Glash and Carlo San Giovanni (Geraghty & Miller) to John Barnes dated June 4, 1990 regarding the analysis for asbestos in groundwater samples.
4. Letter from Scott Glash and Andrew Barber (Geraghty & Miller) to John Barnes dated June 6, 1990 regarding the soil gas survey.
5. Revised Appendix J - "Citizen Participation Plan, Grumman Aerospace Corporation, Bethpage, New York" by Geraghty & Miller, Inc., dated July 10, 1990.

We will be contacting you in the very near future regarding scheduling a public meeting which will be held prior to commencing field work. If you have any questions regarding this matter, please feel free to call me at (518) 457-3395.

J. OHLMANN

NOV 1 1990

Director Environ. Protection

Sincerely,

John D. Barnes, M.S.
Environmental Engineer I
Bureau of Eastern Remedial Action
Div. of Hazardous Waste Remediation

JB/dd
h

Grumman Corporation

Bethpage, New York 11714-3580

June 1, 1990
FDP - 177

N.Y. State Dept. of Environmental Conservation
50 Wolf Road
Albany, New York, 12233-7010

Attn: Mr. John D. Barnes
Project Engineer
Bureau of Eastern Remedial Action
Div. of Hazardous Waste Remediation

Subject: Grumman Aerospace Corporation
Site #130003

Reference: Letter from Mr. Barnes to J. Ohlmann,
dated 5/16/90.

Enclosures: (1) Signed revised letter of Addendum to the RI/FS
Work Plan

(2) Revised Appendix J - Citizen Participation Plan
Grumman Aerospace Corporation
Bethpage, N.Y.

(3) Revised Parameter Table

(4) Resumes for Data Validation Personnel

— Final
version is
dated 7/10/90
see attached.

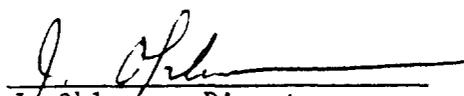
Dear Mr. Barnes:

Enclosed please find the signed revised letter of Addendum to the RI/FS Work Plan, revised Citizen Participation Plan, revised Parameter Table and resumes for Data Validation personnel as required.

If you have any questions, please call me at (516)575-2385.

Very truly yours,

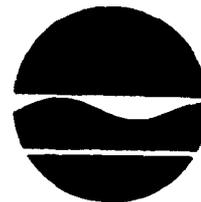
GRUMMAN CORPORATION



J. Ohlmann, Director
Corporate Environmental Protection

JO/tla
0591S/3

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233



Thomas C. Jorling
Commissioner

MAY 16 1990

John Ohlmann, P.E.
Director, Environmental Protection
Mail Stop B08-30
Grumman Aerospace Corporation
Bethpage, NY 11714

Re: Letter of Addendum
to Grumman Aerospace
RI/FS Work Plan
Site # 1-30-003

Dear Mr. Ohlmann:

The following comments on the March 1990 draft of the above referenced Work Plan must be satisfactorily addressed before the Work Plan can be approved. For convenience, these comments are presented in three categories:

- A. Modifications to the Monitoring Well Configuration
- B. Quality Assurance/Quality Control Issues
- C. Miscellaneous Issues

These comments reflect concerns raised by personnel from the NYS Departments of Health and Environmental Conservation, and the Nassau County Health Department.

A. Modifications to the Monitoring Well Configuration

- A1 - Change the designation of Well GM-3S (N-10812) to GM-3I and install a new well which will be designated as GM-3S. If it turns out that Well N-10812 is indeed screened across the water table, then an intermediate well will need to be installed.
- A2 - Change the designation of Well GM-11S (N-6683) to GM-11I.

B. Quality Assurance/Quality Control Issues

- B1 - A new edition of analytical protocols has been released by the NYS Department of Environmental Conservation (NYSDEC) to replace the November 1987 edition of the NYSDEC Contract Laboratory Protocol (CLP). The new release is an eight volume document entitled NYSDEC Analytical Services Protocols (ASP), September 1989 edition. These new protocols must be adhered to during this RI/FS.

(NOTE: This document may be obtained from the NYSDEC Division of Water, Bureau of Technical Services and Research at a cost of \$1250. For further information call (518) 457-7470.)

The full deliverable package must be submitted for the following data

points:

Groundwater : wells GM-12 (S,I)
 wells GM-20 (S,I,D)

Basins : surface water and sediment samples from Basin B-2

Soils : Boring B-2
 well boring GM-18I
 well boring GM-20S

The deliverable packages for all other samples must be made available to the Department upon request.

- B2 - It has come to the Department's attention that cement/asbestos piping is in use at the facility. Therefore, asbestos must be added to the list of analytes for groundwater and for samples collected from the recharge basins.
- B3 - The detection limit for PCB's in groundwater must be 0.05 ug/l or less for samples collected during Phase I of the RI.
- B4 - Appendix F, Section 5.6, Page 15:
Analytical cleanups, as delineated in either NYSDEC 1989 ASP and/or SW846 are mandatory where matrix interferences are noted. Dilution of samples greater than five fold in place of cleanup procedures to remove matrix interferences (i.e., non-resolvable hydrocarbons, phthalates, etc.) will be considered to constitute non-compliance. This does not limit dilution of samples or extracts to quantify analytes present at levels above the instrument calibration range.
- B5 - Appendix F, Section 11.0, Page 22:
Field Blanks must be analyzed for the entire TCL.
- B6 - Appendix F, Section 12.0, Page 24:
Delete the fourth bullet on this page.

All references to NYSDEC evaluation of laboratory capabilities must be deleted/disregarded. The consultant is responsible for the quality of the data produced by its subcontractors.

- B7 - Appendix F - Table F-1:
The specific methods used to analyze samples must be presented on this table. This table must be revised and submitted along with the signed copy of this letter.
- B8 - Laboratory data packages should be sent to NYSDEC following the completion of the data validation process. These data packages must contain completed information sheets (attached). The data validation report and all usability memoranda must accompany these data packages. NOTE: The following guidance documents should be used as a guide during the data validation process:
 - 1 - USEPA SOP #HW-2 12/88 Revision #8 (inorganic data)
 - 2 - SOP 3/89, Revision #6 (organic data)
- B9 - In order to meet NYSDEC QA/QC requirements, level 300 bottles from I Chem Corporation must be used.

C. Miscellaneous Issues

C1 - Volume I, Page 55:

The last sentence on this page must read: "When no applicable standards exist, alternatives will be evaluated via a quantitative risk assessment."

C2 - Appendix A: The data validator's resume must be submitted to the Department. This can be done via a side letter to this document.

C3 - Appendix G, Attachment G-1:

Prior to collecting a soil gas sample, only 2 to 3 volumes of air need to be purged from the system (as opposed to purging for a set period of time). In addition, the GC column type and the make and model of the portable GC to be used during this survey must be submitted to the Department. This can be done via a side letter to this document.

C4 - Appendix G, Attachment G-4, Page 1:

Two-inch split-spoon samplers often do not yield sufficient quantities of soil to conduct a full TCL scan. Therefore, Geraghty & Miller must use three or four inch diameter spoons. (This will allow the NYSDEC to also collect split-samples if so desired.)

C5 - Appendix G, Attachment G-5, Page 4:

Purging and sampling of the newly installed wells will be done as follows:

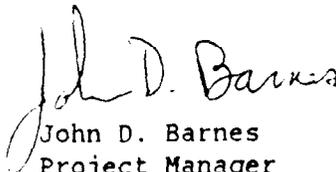
- 1 - The wells will be purged via the use of dedicated airlift purge pump set below the top of the water column. Three (3) well volumes will be purged from each well. (NOTE: Three well volumes will be purged from all wells sampled during this investigation.)
- 2 - The samples will be collected via the use of dedicated bladder pumps set well below the purge pump.
- 3 - The purge pump will continue to operate during sample collection.

C6 - Appendix G, Attachment G-5, Page 6:

While it is acceptable to pour purge water into graduated buckets, it is not acceptable to pour sample water into anything but the sample jars to be sent to the laboratory. The use of transfer containers when sampling groundwater will not be allowed.

This letter will be appended to the Work Plan once it is signed by both the NYSDEC and Grumman Aerospace Corporation.

Very truly yours,



John D. Barnes
Project Manager
NYSDEC

Division of Haz. Waste Remediation
Bureau of Eastern Remedial Action

Grumman Aerospace Corporation agrees to incorporate this letter into the Work Plan for this investigation.

A handwritten signature in cursive script, appearing to read "John Ohlmann", written over a horizontal line.

John Ohlmann, P.E.
Director, Environmental Protection
Grumman Aerospace Corporation

Table F-1. Sample Matrices, Parameters, and Frequency of Collection, Grumman Aerospace Corporation, Bethpage, New York.

Sample Matrix	Parameter or Parameter Group +	Total No. of Samples*	Total No. of Field Replicates	Total No. of Field Blanks	Total No. MS/MSD/LD Samples
A. Soil:					
1. Soil Borings	TCL, and Hexavalent Chromium	3 (min) 6 (max)	N/A	b	c
2. New Monitoring Well-Boreholes	TCL, and Hexavalent Chromium	29 (min) 58 (max)	N/A	b	c
B. Bottom Sediment:					
South Recharge Basins	TCL VOCs only	16	N/A	b	c
	TCL (except VOCs), and Hexavalent Chromium	4	N/A	b	c
MS	Matrix Spike (Samples will be collected for TCL volatile, TCL semivolatile, TCL pesticide/PCB, TCL metals, cyanide, and hexavalent chromium analyses).				
MSD	Matrix Spike Duplicates (Samples will be collected for TCL volatile, TCL semivolatile, and TCL pesticide/PCB analyses).				
LD	Laboratory Duplicate (Samples will be collected for TCL metals, cyanide, and hexavalent chromium analyses).				
TCL	New York State Department of Environmental Conservation Superfund Target Compound List.				
VOC	Volatile Organic Compounds.				
N/A	Not Applicable. Due to the nonhomogeneous nature of the samples and the high degree of variability routinely seen in replicate soil and bottom-sediment analyses, these samples will not be collected.				
a	Field replicates will be collected at the frequency of 5 percent (one in 20) or a minimum of one per sample matrix if less than 20 samples are collected.				
b	One field blank (for TCL VOCs only) will be taken per drill site, or day of sampling.				

- c One MS, MSD, and LD will be analyzed (as described above) at a frequency of 5 percent (one in 20 samples), or one per 2-week period during which field samples are received (said period to begin with the receipt of the first sample/sample group by the laboratory).
- * Includes field replicates but not field blanks, trip blanks, MS, MSD, or LD examples.
- + All analytical methods from New York State Department of Environmental Conservation Analytical Services Protocol, September 1989.

TCL Volatile Compounds	Method: NYSDEC 89-1
TCL Semivolatile Compounds	Method: NYSDEC 89-2
TCL Pesticides/PCB Compounds	Method: NYSDEC 89-3
TCL Inorganics by ICP (Aluminum, Antimony, Barium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Magnesium, Manganese, Nickel, Potassium, Silver, Sodium, Vanadium and Zinc)	Method: 200.7 CLP-M
TCL Inorganics by Furnace Atomic Absorption	
Arsenic	Method: 206.2 CLP-M
Lead	Method: 239.2 CLP-M
Selenium	Method: 270.2 CLP-M
Thallium	Method: 279.2 CLP-M
TCL Inorganics by Cold Vapor Analysis	
Mercury (water)	Method: 245.2 CLP-M
Mercury (soils)	Method: 245.5 CLP-M
TCL Inorganics by Distillation	
Cyanide	Method: 335.2 CLP-M
Hexavalent Chromium	Method: 7196

Table F-1. Sample Matrices, Parameters, and Frequency of Collection, Grumman Aerospace Corporation, Bethpage, New York.

Sample Matrix	Parameter or Parameter Group +	Total No. of Samples*	Total No. of Field Replicates	Total No. of Field Blanks	Total No. MS/MSD/LD Samples
C. Recharge Basin Water:					
South Recharge Basins	TCL VOCs only	17	a	b	c
	TCL (except VOCs), and Hexavalent Chromium	5	a	b	c
D. Ground Water:					
New and Existing Monitoring Wells	TCL, and Hexavalent Chromium	49	a	b	c

MS Matrix Spike (Samples will be collected for TCL volatile, TCL semivolatile, TCL pesticide/PCB, TCL metals, cyanide, and hexavalent chromium analyses).

MSD Matrix Spike Duplicates (Samples will be collected for TCL volatile, TCL semivolatile, and TCL pesticide/PCB analyses).

LD Laboratory Duplicate (Samples will be collected for TCL metals, cyanide, and hexavalent chromium analyses).

TCL New York State Department of Environmental Conservation Superfund Target Compound List.

VOC Volatile Organic Compounds.

N/A Not Applicable. Due to the nonhomogeneous nature of the samples and the high degree of variability routinely seen in replicate soil and bottom-sediment analyses, these samples will not be collected.

a Field replicates will be collected at the frequency of 5 percent (one in 20) or a minimum of one per sample matrix if less than 20 samples are collected.

b One field blank (for TCL VOCs only) will be taken per drill site, or day of sampling.

- c One MS, MSD, and LD will be analyzed (as described above) at a frequency of 5 percent (one in 20 samples), or one per 2-week period during which field samples are received (said period to begin with the receipt of the first sample/sample group by the laboratory).
- * Includes field replicates but not field blanks, trip blanks, MS, MSD, or LD examples.
- + All analytical methods from New York State Department of Environmental Conservation Analytical Services Protocol, September 1989.

TCL Volatile Compounds	Method: NYSDEC 89-1
TCL Semivolatile Compounds	Method: NYSDEC 89-2
TCL Pesticides/PCB Compounds	Method: NYSDEC 89-3
TCL Inorganics by ICP (Aluminum, Antimony, Barium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Magnesium, Manganese, Nickel, Potassium, Silver, Sodium, Vanadium and Zinc)	Method: 200.7 CLP-M
TCL Inorganics by Furnace Atomic Absorption	
Arsenic	Method: 206.2 CLP-M
Lead	Method: 239.2 CLP-M
Selenium	Method: 270.2 CLP-M
Thallium	Method: 279.2 CLP-M
 TCL Inorganics by Cold Vapor Analysis	
Mercury (water)	Method: 245.2 CLP-M
Mercury (soils)	Method: 245.5 CLP-M
 TCL Inorganics by Distillation	
Cyanide	Method: 335.2 CLP-M
 Hexavalent Chromium	Method: 7196



JOHN E. BURKE

Scientist

CREDENTIALS/REGISTRATION

B.S. Marine Chemistry, Southampton Campus of Long Island University, NY,
1986

PROFESSIONAL AFFILIATIONS

American Chemical Society
Association of Ground Water Scientists and Engineers (NWWA)

FIELDS OF SPECIALIZATION

- Field sampling
- Onsite chemical analysis
- Chemical data validation

EXPERIENCE SUMMARY

Prior to joining Geraghty & Miller in 1988, Mr. Burke was employed by an environmental testing laboratory as an analytical chemist. Responsibilities included the general overseeing of the metals department, sample preparation, analysis using Atomic Absorption Spectroscopy, and Inductively Coupled Plasma Emission Spectrophotometry and the care and upkeep of quality control records.

As a chemist and Scientist with Geraghty & Miller, Mr. Burke's responsibilities have included operating the field Gas Chromatograph for groundwater investigations to characterize the magnitude, extent, and transport of chemical contaminants. Mr. Burke has performed validation of chemical data by USEPA Contract Laboratory Program protocol for federal and New York State Superfund sites. He has also conducted wet chemical analyses.

KEY PROJECTS

- Performed validation of chemical data for federal Superfund sites in New York, New Jersey, and Indiana.
- Performed validation of chemical data collected at two sites in New York by New York State Contract Laboratory Program Validation protocol.
- Provided on-site gas chromatographic analysis of the effluent from air strippers at a petroleum transfer terminal in Detroit, Michigan.
- Conducted a verification of historic chemical data collected at a Superfund site in New Jersey.
- Performed on-site wet chemical analyses at a Superfund site in New York.



LAUREN E. SJOGREN

Scientist

CREDENTIALS/REGISTRATION

M.S. Analytical Chemistry, University of Maryland, MD, 1988
B.S. Chemistry, C.W. Post Center of Long Island University, NY, 1983

PROFESSIONAL AFFILIATIONS

American Chemical Society
Association of Ground Water Scientists and Engineers (NWWA)

FIELDS OF SPECIALIZATION

- Field sampling
- Chemical data validation

EXPERIENCE SUMMARY

Prior to joining Geraghty & Miller, Ms. Sjogren was employed by a consulting firm as an environmental chemist. Her responsibilities included validation of chemical data, assisting in the preparation of quality assurance project plans and participation in field sampling programs. The chemical validation of data included the screening of all laboratory data to determine the laboratory compliance with New York State Department of Environmental Conservation (NYSDEC) Contract Laboratory Protocols (CLP). Ms. Sjogren's professional experience also includes laboratory positions in both academic and industrial sectors.

As a research assistant at the University of Maryland, Ms. Sjogren utilized instrumental neutron activation analysis of several types of environmental samples. In addition, aqueous samples were also analyzed for sulfate and nitrate using ion chromatography. During her tenure at the University of Maryland, Ms. Sjogren also served as a summer intern at FMC Corporation's Baltimore, Maryland facility as a process laboratory technician. This position included responsibility for conducting pesticide and herbicide analysis utilizing gas chromatography.

Upon completion of the Master's Program at the University of Maryland, including the preparation of a research thesis, Ms. Sjogren took a position as quality control chemist with a chemical manufacturing firm in New York. Responsibilities included stability testing and release of finished products according to United States Pharmacopeia (USP) specifications utilizing liquid chromatography, gas chromatography and UV spectroscopy.

As a chemist and scientist with Geraghty & Miller, Ms. Sjogren has been responsible for the validation of chemical data by USEPA CLP for Federal Superfund sites in Indiana and New Jersey.

PUBLICATIONS/PRESENTATIONS

American Chemical Society; Middle Atlantic Regional Meeting "Atmospheric Concentrations and Wet Deposition of Elements Used for Tracing Source Emissions," May 1987.

Thesis Research: Wintertime Composition of Precipitation, Atmospheric Particles and Gases in College Park, MD.

APPENDIX J

Citizen Participation Plan
Grumman Aerospace Corporation
Bethpage, New York

Revised 6/1/90

APPENDIX J

CITIZEN PARTICIPATION PLAN GRUMMAN AEROSPACE CORPORATION TOWN OF OYSTER BAY NASSAU COUNTY, NEW YORK

INTRODUCTION

This site-specific citizen participation plan (CPP) describes a program for community participation during the Remedial Investigation/Feasibility Study (RI/FS) of the Grumman Aerospace Corporation site located in the town of Oyster Bay, Nassau County, New York. The purpose of this program is to involve the community, county, state, and federal public officials, commercial interests, public interest groups, and other interested or affected citizens in the remedial decision-making process. The program also serves to keep these groups informed of remedial activities on-site.

BASIC SITE INFORMATION

The Grumman site consists of approximately 500 acres in the village of Bethpage located in the town of Oyster Bay (see Figure 1 of RI/FS work plan). The site is bounded on three sides by roadways: Stewart Avenue to the north; Central Avenue to the south; and Broadway Hicksville-Massapequa Road to the southwest. The Occidental Chemical/RUCO Polymer Corporation is located adjacent to the site's western border. The U.S. Naval Weapons Industrial Reserve Plant is located on approximately 100 acres in the north-central portion of the property.

Grumman is currently Long Island's largest employer. The facility engages in a number of activities including the research, development, and manufacture of airplanes for the U.S. Department of Defense, production of satellite equipment, and construction of trucks and buses.

In late 1983, the Grumman Bethpage facility was listed as a Class 2a site in the Registry of Inactive Hazardous Waste Disposal Sites in New York. Class 2a is a temporary designation assigned to sites that have inadequate and/or insufficient data for inclusion in any other classification. From 1986 to 1988, Grumman and the New York State Department of Environmental Conservation (NYSDEC) negotiated to conduct a site-wide ground-water investigation (Phase I and Phase II). A joint Phase I/Phase II

work plan was prepared but an investigation was not conducted because in January 1988, Grumman was notified that the Bethpage facility had been reclassified as a Class 2 site and an RI/FS investigation was requested. Class 2 is a designation assigned to sites that present a significant threat to the public health or environment and for which action is required. Grumman submitted an RI/FS Work Plan in July 1988, for which NYSDEC comments were received in June 1989. The RI/FS Work Plan is currently being revised. Once the Work Plan is approved, a Consent Order or legal agreement, stating the responsibility for the investigation and cleanup, will be in effect.

In the past, public concern over environmental issues associated with the facility has been minimal. Press coverage on environmental problems has been equally minimal. This may be attributed to Grumman's public relations activity which informed both facility employees and the public of environmental issues and of measures that had been undertaken to correct environmental problems. Moreover, Grumman has been associated with the initiation of the current Nassau County ground-water quality monitoring program.

Due to the history of environmental issues associated with the site, the heightened public concern over Grumman's ability to continue employment, and Grumman's commitment to remediating any environmental problems associated with its Bethpage operations, it is anticipated that the community's concern over environmental issues that arise from RI/FS activities will be minimal.

PROJECT DESCRIPTION

An RI/FS will be performed at the Grumman site. The purpose of the RI/FS is to determine the nature and extent of ground-water and soil contamination originating from and/or present at the Grumman facility, to explore remedial (clean up) alternatives, and to choose the remedial action that will best protect public health and minimize adverse environmental effects.

The RI/FS will consist of on-site soil and recharge basin-water investigations. The study will also include on-site ground-water investigations to determine ground-water flow direction and quality. Off-site ground-water investigations will be performed (as a separate phase) if it is determined that more data are necessary to complete the RI/FS.

The on-site field investigations will provide data to define the hydrogeologic framework of the site, identify potential on-site contaminant source areas, characterize the nature and extent of on-site contamination attributable to the Grumman facility (if any), and provide sufficient data to properly develop and evaluate remedial alternatives. Once the data is collected and analyzed, initial screening of remedial alternatives will be performed, followed by a detailed evaluation of remaining alternatives. A conceptual design of the recommended remedial action will then be developed and presented in the final RI/FS report.

POTENTIALLY AFFECTED AND/OR INTEREST PUBLIC (CONTACT LIST)

A. Federal Elected Officials

1. U.S. Senator Alfonse M. D'Amato (202) 224-6542
U.S. Senate
520 Hart Senate Office Building
Washington, DC 20510

State Office: (212) 947-7390
7 Penn Plaza
Suite 600
New York, NY 10001

2. U.S. Senator Daniel P. Moynihan (202) 224-4451
U.S. Senate
464 Russell Senate Office Building
Washington, DC 20510

State Office: (212) 661-5150
733 Third Avenue
New York, NY 10017

3. Congressman Norman F. Lent (202) 225-7896
U.S. House of Representatives
2408 Rayburn Office Building
Washington, DC

District Office: (516) 223-1616
2280 Grand Avenue
Baldwin, NY 11510

B. State Elected Officials

1. Governor Mario M. Cuomo (518) 474-8418
State Capitol
Executive Chamber
Albany, NY 12224

2. State Senator John R. Dunne (518) 455-2831
505 State Capitol
Albany, NY 12247
- C. Nassau County Officials
1. Thomas S. Gulotta (516) 535-3131
Nassau County Executive
County Executive Building
One West Street
Mineola, NY 11501
2. Donald H. Myott, PE (516) 535-3323
Public Health Engineer
Nassau County Department of Health
Bureau of Public Water Supply
240 Old Country Road
Mineola, NY 11501
- D. Newspapers
1. Newsday (516) 454-2700
Susan Benkelman, Environmental Writer
235 Pinelawn Road
Melville, NY 11747
(daily: serves Long Island and area)
- E. Citizens and Other Interested Parties
1. Ronald Krumholz (516) 931-0093
Superintendent
Bethpage Water District
25 Adams Avenue
Bethpage, NY 11714
2. Douglas Smolensky (516) 938-8830
Hydrologist
United States Geological Survey
5 Aerial Way
Syosset, NY 11791
3. U.S. Naval Weapons Industrial (516) 575-3968
Reserve Plant
Edward Coruzzi
Bethpage, NY 11714

This is an initial list. As the investigation progresses, it will be amended, if appropriate to include the following:

- o Interested/affected citizens living in the vicinity of the site.
- o Local elected or appointed officials.
- o Public Interest Groups
- o Local Media

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL
CONSERVATION AND STATE HEALTH DEPARTMENT CONTACTS**

- | | | |
|----|--|----------------|
| 1. | Joshua Epstein
Citizen Participation Specialist
Region 1
NYSDEC
Building 40
State University of New York
Stony Brook, NY 11790 | (516) 751-7900 |
| 2. | John D. Barnes
Project Manager
NYSDEC
50 Wolf Road
Room 222
Albany, NY 12233-7010 | (518) 457-3395 |
| 3. | Alice M. McCarthy
Senior Attorney
NYSDEC
202 Mamaroneck Avenue
Room 304
White Plains, NY 10601 | (914) 761-3575 |
| 4. | Anthony Candela, P.E.
NYSDEC
Region 1
SUNY Campus
Building 40
Stony Brook, NY 11790 | (516) 751-7900 |
| 5. | Mr. Kim Mann
NYSDOH
2 University Place
Room 205
Albany, NY 12203 | (518) 458-6308 |

(Others as determined.)

GRUMMAN CONTACTS

1. John Ohlmann (516) 575-2385
 Director, Corporate Environmental Protection
 Mail Stop B-08-30
 Grumman Aerospace Corp.
 Bethpage, NY 11714

2. John J. Carroll (516) 575-3376
 V.P. Community Affairs
 Grumman Corp.
 1111 Stewart Avenue
 Bethpage, NY 11714

DOCUMENT REPOSITORY LOCATION

Bethpage Public Library (516) 931-3907
 47 Powell Avenue
 Bethpage, NY 11714

Hours of Operation

Monday - Friday	9:30 am - 9:00 pm
Saturday	9:30 am - 5:00 pm
Sunday	Closed

DESCRIPTION OF CITIZEN PARTICIPATION
 ACTIVITIES FOR EACH MAJOR ELEMENT
 OF THE REMEDIAL PROGRAM

The following activities are recommended for the Grumman citizen's participation program. The activities are in accordance with NYSDEC requirements. Table J-1 illustrates the timing of each activity during the remedial schedule for the site.

The Grumman Aerospace Corporation will be responsible for implementing this CPP. A citizen participation coordinator (CPC) will be designated by Grumman who will oversee implementation of the CPP and be available to respond to questions from the community. When chosen, the name and telephone number of the CPC will be attached to this CPP and included in the local document repository. In addition, the first public mailing will contain the name and telephone number of the CPC.

Once the final RI/FS Work Plan is prepared, a copy of the plan will be placed in the project's local document repository, and a public meeting will be held to present the Work Plan to the public. Following the public meeting there will be a 30-day public

comment period during which the public may submit any comments or questions that they may have to the Department's Project Manager, who will then prepare a responsiveness summary which will be placed in the document repository.

Upon completion, one copy of the final Remedial Investigation Report will be placed in the project's local document repository. A mailing utilizing the contact list will announce the placement, and a fact sheet will be distributed summarizing the report. A legal notice published in a local newspaper of general circulation also will announce the report's availability. A 30-day public comment period and a public meeting regarding the report will then take place. These events will be announced in the aforementioned legal notice. The Department's Project Manager will prepare a responsiveness summary which will address the public's comments and questions. This summary will be placed in the document repository.

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Any additional, required citizen participation activities will be carried out in accordance with the NYSDEC requirements and guidance. Optional communication activities may be implemented if considered necessary.

GLOSSARY OF KEY TERMS AND MAJOR PROGRAM ELEMENTS

A. Key Terms

Aquifer - A geologic formation that is sufficiently permeable to conduct ground water and to yield significant quantities of water to wells and springs.

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Delisting - Removal of a site from the state Registry based on data that show the site does not contain hazardous wastes.

Potentially Responsible Party Lead Site - A site at which those legally liable have accepted responsibility for the investigation and the development and implementation of its remedial program. Potentially Responsible Parties (PRPs) may be current owners, past and present site operators, or those who generated wastes placed at the site. Remedial programs developed and implemented by PRPs generally result from an enforcement action taken by the state. PRPs usually incur the costs associated with a remedial program.

Ranking System - The U.S. Environmental Protection Agency uses a hazard ranking system (HRS) to assign numerical scores to each inactive hazardous waste site. The scores express the relative risk or danger from the site.

Responsible Parties - Those individuals or groups responsible for, or contributing to, the contamination at a hazardous waste site.

State Lead Site - An inactive hazardous waste site at which the NYSDEC has responsibility for investigating problems and developing and implementing the site's remedial program. The NYSDEC generally uses funds available from the State Superfund and the Environmental Quality Bond Act of 1986 to pay for these activities. The NYSDEC has direct control and responsibility for the remedial program.

June 4, 1990

Mr. John D. Barnes
Project Engineer
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany, NY 12233

Re: Methodology for Analysis of Asbestos in Ground Water Samples

Dear John:

As per our telephone conversation on May 29, we will analyze ground water samples for asbestos from Grumman Aerospace Corporation by the Polarized Light Microscopy (PLM) Method. If you have any questions regarding this matter, please do not hesitate to call.

Sincerely,

GERAGHTY & MILLER, INC.



Scott J. Glash
Hydrogeologist



Carlo San Giovanni
Project Manager/
Senior Hydrogeologist

SJG/CSG:kw
c:Barne530.Ltr

June 6, 1990

Mr. John D. Barnes
Project Engineer
New York Department of
Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany, New York 12233

Re: Grumman Aerospace Corporation, Site #130003

Dear John:

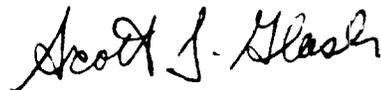
Per your letter dated May 16, enclosed please find the revised page J-2 from Appendix J of the Work Plan and a description of the gas chromatograph which will be used for the Soil Gas Survey.

Geraghty & Miller utilizes a pumping-time study to begin a soil gas survey. This study determines the optimum pumping time required to obtain a representative soil-gas sample for the site. The pumping time study is conducted at a soil-gas point most likely to yield a positive result. Samples are collected at one minute intervals for a duration of five minutes. The pumping time which corresponds to the highest concentration of volatile organic compounds detects soil-gas through the survey. The gas chromatograph will be a Photovac 10S50 portable gas chromatograph equipped with a CPSIL 5 column.

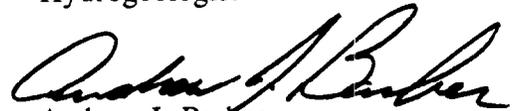
Please contact the undersigned should you have any questions.

Sincerely,

GERAGHTY & MILLER, INC.



Scott J. Glash
Hydrogeologist



Andrew J. Barber
Senior Project Advisor

SJG/AJB:kw
b:Barnes.Doc

cc: J. Ohlmann
A. McCarthy

work plan was prepared but an investigation was not conducted because in January 1988, Grumman was notified that the Bethpage facility had been reclassified as a Class 2 site and an RI/FS investigation was requested. Class 2 is a designation assigned to sites that present a significant threat to the public health or environment and for which action is required. There is an order on consent between Grumman and the NYSDEC to perform an RI/FS and a work plan which describes the activities which will be conducted as part of the RI/FS.

In the past, public concern over environmental issues associated with the facility has been minimal. Press coverage on environmental problems has been equally minimal. This may be attributed to Grumman's public relations activity which informed both facility employees and the public of environmental issues and of measures that had been undertaken to correct environmental problems. Moreover, Grumman has been associated with the initiation of the current Nassau County ground-water quality monitoring program.

Due to the history of environmental issues associated with the site, the heightened public concern over Grumman's ability to continue employment, and Grumman's commitment to remediating any environmental problems associated with its Bethpage operations, it is anticipated that the community's concern over environmental issues that arise from RI/FS activities will be minimal.

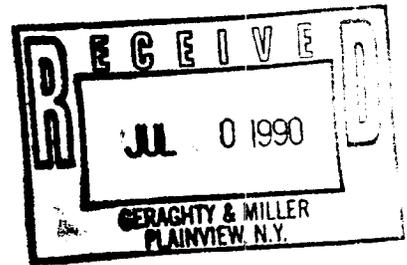
PROJECT DESCRIPTION

An RI/FS will be performed at the Grumman site. The purpose of the RI/FS is to determine the nature and extent of ground-water and soil contamination originating from and/or present at the Grumman facility, to explore remedial (clean up) alternatives, and to choose the remedial action that will best protect public health and minimize adverse environmental effects.

The RI/FS will consist of on-site soil and recharge basin-water investigations. The study will also include on-site ground-water investigations to determine ground-water flow direction and quality. Off-site ground-water investigations will be performed (as a separate phase) if it is determined that more data are necessary to complete the RI/FS.

Grumman Corporation

Bethpage New York 11714-3563



July 24, 1990
FDP-240

N.Y. State Dept. of Environmental Conservation
50 Wolf Road
Albany, New York, 12233-7010

Attn: John D. Barnes, Project Engineer
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation

Subject: Grumman Aerospace Corporation
Site #130003

Enclosures: Revised, 7/10/90, Appendix J - Citizen Participation
Plan, Grumman Aerospace Corporation, Bethpage, N. Y.

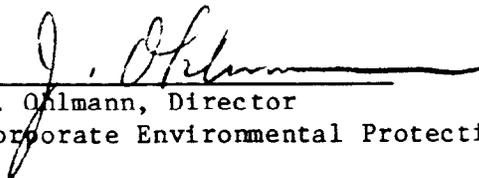
Dear Mr. Barnes:

Please find revised, 7/10/90, enclosed Citizen Participation Plan. We have revised the Potentially Affected and/or Interest Public (Contact List) as discussed.

If you have any questions, please call me at (516)575-2385.

Very truly yours,

GRUMMAN CORPORATION



J. Orlmann, Director
Corporate Environmental Protection

JO/gms

0591S/2

Enclosure

bcc: D. Cassell

B. Andres, J. Carroll, J. Cofman, M. Marlek, G. Turney, R. Yezek

✓ Geraghty & Miller (A. Barber/C. San Giovanni)

APPENDIX J

Citizen Participation Plan
Grumman Aerospace Corporation
Bethpage, New York

Revised 7/10/90

APPENDIX J

CITIZEN PARTICIPATION PLAN GRUMMAN AEROSPACE CORPORATION TOWN OF OYSTER BAY NASSAU COUNTY, NEW YORK

INTRODUCTION

This site-specific citizen participation plan (CPP) describes a program for community participation during the Remedial Investigation/Feasibility Study (RI/FS) of the Grumman Aerospace Corporation site located in the town of Oyster Bay, Nassau County, New York. The purpose of this program is to involve the community, county, state, and federal public officials, commercial interests, public interest groups, and other interested or affected citizens in the remedial decision-making process. The program also serves to keep these groups informed of remedial activities on-site.

BASIC SITE INFORMATION

The Grumman site consists of approximately 500 acres in the village of Bethpage located in the town of Oyster Bay (see Figure 1 of RI/FS work plan). The site is bounded on three sides by roadways: Stewart Avenue to the north; Central Avenue to the south; and Broadway Hicksville-Massapequa Road to the southwest. The Occidental Chemical/RUCO Polymer Corporation is located adjacent to the site's western border. The U.S. Naval Weapons Industrial Reserve Plant is located on approximately 100 acres in the north-central portion of the property.

Grumman is currently Long Island's largest employer. The facility engages in a number of activities including the research, development, and manufacture of airplanes for the U.S. Department of Defense, production of satellite equipment, and construction of trucks and buses.

In late 1983, the Grumman Bethpage facility was listed as a Class 2a site in the Registry of Inactive Hazardous Waste Disposal Sites in New York. Class 2a is a temporary designation assigned to sites that have inadequate and/or insufficient data for inclusion in any other classification. From 1986 to 1988, Grumman and the New York State Department of Environmental Conservation (NYSDEC) negotiated to conduct a site-wide ground-water investigation (Phase I and Phase II). A joint Phase I/Phase II

work plan was prepared but an investigation was not conducted because in January 1988, Grumman was notified that the Bethpage facility had been reclassified as a Class 2 site and an RI/FS investigation was requested. Class 2 is a designation assigned to sites that present a significant threat to the public health or environment and for which action is required. There is an order on consent between Grumman and the NYSDEC to perform an RI/FS and a work plan which describes the activities which will be conducted as part of the RI/FS.

In the past, public concern over environmental issues associated with the facility has been minimal. Press coverage on environmental problems has been equally minimal. This may be attributed to Grumman's public relations activity which informed both facility employees and the public of environmental issues and of measures that had been undertaken to correct environmental problems. Moreover, Grumman has been associated with the initiation of the current Nassau County ground-water quality monitoring program.

Due to the history of environmental issues associated with the site, the heightened public concern over Grumman's ability to continue employment, and Grumman's commitment to remediating any environmental problems associated with its Bethpage operations, it is anticipated that the community's concern over environmental issues that arise from RI/FS activities will be minimal.

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An RI/FS will be performed at the Grumman site. The purpose of the RI/FS is to determine the nature and extent of ground-water and soil contamination originating from and/or present at the Grumman facility, to explore remedial (clean up) alternatives, and to choose the remedial action that will best protect public health and minimize adverse environmental effects.

The RI/FS will consist of on-site soil and recharge basin-water investigations. The study will also include on-site ground-water investigations to determine ground-water flow direction and quality. Off-site ground-water investigations will be performed (as a separate phase) if it is determined that more data are necessary to complete the RI/FS.

The on-site field investigations will provide data to define the hydrogeologic framework of the site, identify potential on-site contaminant source areas, characterize the nature and extent of on-site contamination attributable to the Grumman facility (if any), and provide sufficient data to properly develop and evaluate remedial alternatives. Once the data is collected and analyzed, initial screening of remedial alternatives will be performed, followed by a detailed evaluation of remaining alternatives. A conceptual design of the recommended remedial action will then be developed and presented in the final RI/FS report.

POTENTIALLY AFFECTED AND/OR INTEREST PUBLIC (CONTACT LIST)

A. Federal Elected Officials

1. U.S. Senator Alfonse M. D'Amato (202) 224-6542
 U.S. Senate
 520 Hart Senate Office Building
 Washington, DC 20510

State Office: (212) 947-7390
 7 Penn Plaza
 Suite 600
 New York, NY 10001

2. U.S. Senator Daniel P. Moynihan (202) 224-4451
 U.S. Senate
 464 Russell Senate Office Building
 Washington, DC 20510

State Office: (212) 661-5150
 733 Third Avenue
 New York, NY 10017

3. Congressman Norman F. Lent (202) 225-7896
 U.S. House of Representatives
 2408 Rayburn Office Building
 Washington, DC

District Office: (516) 223-1616
 2280 Grand Avenue
 Baldwin, NY 11510

B. State Elected Officials

1. Governor Mario M. Cuomo (518) 474-8418
 State Capitol
 Executive Chamber
 Albany, NY 12224

2. Senator Kemp Hannon (516) 222-0068
550 Stewart Avenue
Garden City, NY 11530
 3. Assemblyman Frederick E. Parola, Jr. (516) 731-3434
3700 Hempstead Turnpike
Levittown, NY 11756
- C. Nassau County Officials
1. Thomas S. Gulotta (516) 535-3131
Nassau County Executive
County Executive Building
One West Street
Mineola, NY 11501
 2. Donald H. Myott, PE (516) 535-3323
Public Health Engineer
Nassau County Department of Health
Bureau of Public Water Supply
240 Old Country Road
Mineola, NY 11501
 3. Honorable Angelo A. Delligatti (516) 999-5800
Supervisor, Town of Oyster Bay
54 Audrey Avenue
Oyster Bay, NY 11771
- D. Newspapers
1. Newsday (516) 454-2700
Susan Benkelman, Environmental Writer
235 Pinelawn Road
Melville, NY 11747
(daily: serves Long Island and area)
 2. Edward P. Mangano, Esq.
Publisher
Bethpage Tribune
329 Broadway
Bethpage, NY 11714
- E. Citizens and Other Interested Parties
1. Ronald Krumholz (516) 931-0093
Superintendent
Bethpage Water District
25 Adams Avenue
Bethpage, NY 11714
 2. Steven M. Feldman (516) 938-8830
Hydrologist
United States Geological Survey
5 Aerial Way
Syosset, NY 11791

3. U.S. Naval Weapons Industrial Reserve Plant (516) 575-3968
Edward Coruzzi
Bethpage, NY 11714

This is an initial list. As the investigation progresses, it will be amended, if appropriate to include the following:

- o Interested/affected citizens living in the vicinity of the site.
- o Local elected or appointed officials.
- o Public Interest Groups
- o Local Media

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL
CONSERVATION AND STATE HEALTH DEPARTMENT CONTACTS**

1. Joshua Epstein (516) 751-7900
Citizen Participation Specialist
Region 1
NYSDEC
Building 40
State University of New York
Stony Brook, NY 11790
2. John D. Barnes (518) 457-3395
Project Manager
NYSDEC
50 Wolf Road
Room 222
Albany, NY 12233-7010
3. Alice M. McCarthy (914) 761-3575
Senior Attorney
NYSDEC
202 Mamaroneck Avenue
Room 304
White Plains, NY 10601
4. Anthony Candela, P.E. (516) 751-7900
NYSDEC
Region 1
SUNY Campus
Building 40
Stony Brook, NY 11790

- 5. Mr. Kim Mann (518) 458-6308
 NYSDOH
 2 University Place
 Room 205
 Albany, NY 12203

(Others as determined.)

GRUMMAN CONTACTS

- 1. John Ohlmann (516) 575-2385
 Director, Corporate Environmental Protection
 Mail Stop B-08-30
 Grumman Aerospace Corp.
 Bethpage, NY 11714
- 2. John J. Carroll (516) 575-3376
 V.P. Community Affairs
 Grumman Corp.
 1111 Stewart Avenue
 Bethpage, NY 11714

DOCUMENT REPOSITORY LOCATION

Bethpage Public Library (516) 931-3907
 47 Powell Avenue
 Bethpage, NY 11714

Hours of Operation

Monday - Friday	9:30 am - 9:00 pm
Saturday	9:30 am - 5:00 pm
Sunday	Closed

**DESCRIPTION OF CITIZEN PARTICIPATION
 ACTIVITIES FOR EACH MAJOR ELEMENT
 OF THE REMEDIAL PROGRAM**

The following activities are recommended for the Grumman citizen's participation program. The activities are in accordance with NYSDEC requirements. Table J-1 illustrates the timing of each activity during the remedial schedule for the site.

The Grumman Aerospace Corporation will be responsible for implementing this CPP. A citizen participation coordinator (CPC) will be designated by Grumman who will oversee implementation of the CPP and be available to respond to questions from the community. When chosen, the name and telephone number of the CPC will be

attached to this CPP and included in the local document repository. In addition, the first public mailing will contain the name and telephone number of the CPC.

Once the final RI/FS Work Plan is prepared, a copy of the plan will be placed in the project's local document repository, and a public meeting will be held to present the Work Plan to the public. Following the public meeting there will be a 30-day public comment period during which the public may submit any comments or questions that they may have to the Department's Project Manager, who will then prepare a responsiveness summary which will be placed in the document repository.

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Consent Order - A legal, enforceable, negotiated agreement between the NYSDEC and responsible parties where the latter agrees to undertake or pay for the costs of an investigation and cleanup at a site. The order includes a description of the remedial actions to be undertaken at the site and a schedule for implementation.

Delisting - Removal of a site from the state Registry based on data that show the site does not contain hazardous wastes.

Potentially Responsible Party Lead Site - A site at which those legally liable have accepted responsibility for the investigation and the development and implementation of its remedial program. Potentially Responsible Parties (PRPs) may be current owners, past and present site operators, or those who generated wastes placed at the site. Remedial programs developed and implemented by PRPs generally result from an enforcement action taken by the state. PRPs usually incur the costs associated with a remedial program.

Ranking System - The U.S. Environmental Protection Agency uses a hazard ranking system (HRS) to assign numerical scores to each inactive hazardous waste site. The scores express the relative risk or danger from the site.

Responsible Parties - Those individuals or groups responsible for, or contributing to, the contamination at a hazardous waste site.

State Lead Site - An inactive hazardous waste site at which the NYSDEC has responsibility for investigating problems and developing and implementing the site's remedial program. The NYSDEC generally uses funds available from the State Superfund and the Environmental Quality Bond Act of 1986 to pay for these activities. The NYSDEC has direct control and responsibility for the remedial program.

Table J-1. Schedule of Citizen Participation Activities During the Remedial Investigation/Feasibility Study at the Grumman Aerospace Corporation, Bethpage, New York.

	Final Work Plan	Final RI Report	Final FS Report
Copy Placed In Document Repository	X	X	X
Mailing to Contact List and/or Public Notice	X	X	X
Fact Sheet Distribution		X	X
Evaluation of CPP		X	
Legal Notice		X	X
Minimum 30-Day Public Comment Period	X	X	X
Public Meeting	X	X	X
Transcript and Responsiveness Summary	X	X	X