Cover Page

Contract NAS1-19470
(Monthly Status Reports)

The following information in the Monthly Status Reports is considered exempt from disclosure (under Exemption 4) of the Freedom of Information Act and has been deleted from the documents:

1. Names of key personnel
2. Names of all subcontractors
3. The man-hours per effort in the Health metrics

ENVIRONMENTAL HEALTH AND SUPPORT SERVICES

MONTHLY PROGRESS REPORT

September 1996

GENERAL - PERSONNEL, TRAINING, AND ADMINISTRATION

Fourteen personnel were performing on-site tasks per the contract as of the end of the month. One hazardous material handler position was filled. Deleted 14 CFR 1206.300 (b) (4)

Work progress inputs from our subcontractor, [redacted] on Environmental Engineering tasks have been received and are summarized in the enclosed report.

The metrics report added to our reporting requirements in August 1993 has been updated and monthly information is enclosed as a part of this report. This report was modified in late November 1995 to add additional man hours by specified item for Industrial Hygiene (IH) and Health Physics (HP) personnel.

Work Orders / Statement of Work Tasks

1. Industrial Hygiene

a. Facility Audits

Currently, periodic Industrial Hygiene (IH) audits are required, and a multi-year IH schedule has been in use since April 1, 1996, per technical directions received. The schedule is annual for high and high-medium health hazard areas, once every 3 years for medium health hazard areas, and once every 5 years for low or low-medium health hazardous NASA operations in facilities. Contractor health hazardous operations are not assessed. Trailers used for storage or administrative offices only are not visited. Eighty-three facility audits were scheduled for 1996.

Industrial Hygiene audits are accomplished in accordance with NASA LaRC worker and management notification procedures. These include advance notification of visits to facility personnel and to the NASA LaRC Personnel office who notifies the Unions.

Surveys for the presence or absence of health hazards, or on the performance of health hazard control equipment, are done if required or requested. Audit and survey data are analyzed, recommendations and observations are noted and summarized in written reports to each facility. Industrial Hygiene checklists were implemented per direction in January 1996. Information from facility personnel on currency of occupational clinic exams for building

personnel are included and sent with the completed report to the NASA Occupational Medicine office for clinic exam protocol and personnel updating. Per NASA direction, OSHA health related discrepancies found are reported directly to facility personnel and their follow up compliance actions are reported by them to the NASA Safety office.

Several 1996 audits were completed and reports were sent this month. These were for facilities: 1212C, 1221A (3 reports), 1247F, 1293A, and 1300. To date this year, 68 scheduled IH audits have been completed and reports sent. Fifteen remaining 1996 audits have been scheduled and work is in progress.

b. Noise and Hearing Conservation

In June, 1991, HQ NASA changed its noise monitoring requirements to noise dosimetry of personnel in the Hearing Conservation Program to once every 2 years. Bionetics has initiated a computerized list of identified hazardous noise areas, and the list is being maintained both to schedule survey revisits and to indicate process areas or operations where hearing conservation program participation is required by exposed personnel. One report on noise dosimetry monitoring of NASA personnel in Building 1214 was sent this month. If contractor personnel are the only individuals in high noise areas, dosimetry is not scheduled or done per technical directions received.

Special noise studies are also done on new equipment or changed processes as they are identified. Periodic hazardous noise reviews or surveys are normally done in conjunction with facility IH audits to satisfy task requirements found in the LaRC Safety Handbook on the Noise Control and Hearing Conservation Program. Two special noise studies were done this month; one at Building 1201, and one at Building 1221. Reports on hazardous noise surveys done during audits were sent with the audit reports.

c. Potentially Hazardous Materials

In mid September, a special report on all active Potentially Hazardous Material Safety Permits and personnel on the Permits was prepared and forwarded to the NASA Risk Manager per his request. Renewal, modification, and audit status is included in this report. Audits of approximately 45 current PHM Permits are performed during periodic IH facility audits and are not reported as a separate audit item. With the change in the Industrial Hygiene audit schedule to a multi-year mode, a few facilities will not receive PHM annual reviews. These have been identified as special audit items.

The Potentially Hazardous Material (PHM) Committee started a revision and rewrite of LaRC Handbook 1710.12 (PHM's) in February 1995. Major rewrite was done on technical sections of the manual. Procedural areas were updated. PHM Committee initial draft review formally started in October 1995 and was finished in early July 1996. The PHM Committee

Chairperson intends to send the initial draft out for final type, and then send it out for Center review. This draft will probably be out in late 1996.

d. Confined Space Permitting

No confined space permits were issued. Permit procedures in the LaRC Facilities Handbook are followed for NASA entry. Site and off-site contractors do their own initial surveys, monitoring, and permitting.

Identification of LaRC confined spaces is a required IH performance task when requested as defined in the LaRC Facilities Handbook. Bionetics has initiated and currently maintains a computerized listing of all LaRC areas previously identified.

e. Asbestos Surveillance and Inspection

Reports of periodic asbestos inspections of facilities known or suspected to have asbestos containing building materials were sent this month for facilities 643, 720, 720A, and 720B. Under this asbestos re-inspection program, facilities are notified by letter prior to visits. A 5 year schedule is currently in use. Approximately 150 buildings are known to have asbestos. Baseline surveys were done from 1989 through 1991. Asbestos condition coding is done per 40 CFR 763, and recommendations for removal or repair, when needed, are in the final inspection reports.

Sampling of floor tiles in Building 1230A resulted in a positive asbestos result for this small building which houses an infrequently used tunnel. Tile and the Building had been reported as negative for asbestos in the LaRC Centerwide survey.

Environmental Health personnel received EPA required annual recertification training this month at off-site EPA approved courses in order to continue to perform these asbestos surveillance tasks.

Site visits to assist engineering personnel in identification of asbestos were done. Bulk sampling and identification of asbestos is done to support future NASA engineering construction projects or ongoing maintenance work. This activity was done on a rush (same day, or next morning), or routine basis using off site accredited laboratory support to help accommodate the construction or maintenance work schedule. Quick verbal reports of results are given to the personnel involved.

No reports on asbestos permits for site contractor (EG&G) asbestos work were received this month. Site visits are done to review plans for small jobs by site contractor asbestos personnel. Permits are issued with NASA approval for any job done per procedures in the LaRC Facilities Handbook. Commonwealth of Virginia and Federal EPA notifications are done if needed in conjunction with the permits.

No formal reports on asbestos monitoring and clearance sampling of EG&G asbestos operations in NASA facilities were done this month. Monitoring of site crews is done to assure asbestos hazards are not present to NASA personnel during and upon completion of work. Clearance sampling is done and verbal reports are used to speed the process. Written reports are then done to document conditions noted. Special sampling of Tyvek suits was done for EG&G lead workers at Building 648 where asbestos was found in exterior mastic after the job was in progress. Samples were negative.

Review of engineering specifications and design submissions for asbestos work are reported in the advisory services section of this Progress Report.

One special request for a search of Bionetics asbestos files was done for several buildings at LaRC for the time period from 1951 to 1979. Search was in conjunction with a claim from one individual.

One special survey to assess airborne asbestos in the tunnel during operation at Building 643 was done per direction received. No significant hazard was found.

f. Other Industrial Hygiene Support

Special survey/review requests were received, surveys done, and reports sent (if needed) for:

- Paint samples taken for lead analyses to support a future project at Building 1230, Room 258A.

- Investigation of a possible metal ingestion hazard from a small paste metal process containing the metal barium at Building 1238A.

Requests for urgent support were received this month. Industrial Hygiene personnel do a stop work and immediately respond (site visit) to these type requests. Task duration varies from a few minutes to several hours. Urgent and immediate response requests for support were received for possible health hazards to building personnel for investigation of:

- Smoke odor (non fire) in Building 1192, Room 226. Site visit done and recommendations concerning fan maintenance, LaRC smoking policies relayed to personnel.

- White precipitate found on an acid bottle lid in a chemical storage locker during an audit in Building 1202.

- Complaint of mold growth received from personnel in the new lab area of Building 1205. Site visit revealed growth on walls and ceiling tiles in several rooms of

new lab. High humidity conditions noted, and maintenance, balance of HVAC system, spot treat of mold, removal of several water damaged tiles was recommended.

- Water leak spraying onto a drum of aluminum powder in Building 1251. Information on safety hazards provided.

- Repeat complaint of 'musty' odor from personnel in Building 1219. Site visit done; slight odor noted. No source found.

- Dust complaint received from a worker in Building 1268, Room 1051. Site visit done; No specific cause found.

2. Health Physics

Whole body and extremity badges (Thermoluminescent Dosimetry rings) for monitoring personnel ionizing radiation exposures for the month of August were collected for submission to a contract laboratory (Landauer) for processing. Results of previous monitoring have indicated no exposures above allowable levels.

Routine, as well as special request, Health Physics Audits were announced in advance per site procedures and performed on non-ionizing sources in Buildings 1298, 720, 1299, and 1202.

Ionizing radiation support was for audits and special request surveys for Buildings 1232A, 1209, 1205, 1265, 1293C, and 1271.

Four safety permits for NIR activity and one safety permit for IR activity were processed.

One training course in laser safety was conducted.

Per NASA request, a mid-month report on non-ionizing (laser) radiation and ionizing radiation Safety Permits and personnel was prepared and forwarded to the Risk Management Branch.

Three month alpha leak test were performed on specific radioactive materials at Langley as dictated by the NRC license.

Assisted NASA Langley space systems in the use of Am^{-241} for high altitude space radiation studies.

3. Environmental Sanitation

No significant Centerwide problems were noted.

An off site (out of country) water sample was received for analyses for unknown contaminants. Volume received was small. Literature search was done, and pesticides and radioactive contaminants were suspected. Analyses for radioactive contaminants was done. Results were sent to the requesting NASA personnel.

4. Environmental Tasks and Hazardous Waste Management

a. Hazardous Waste/Recycling

Disposal of hazardous and non-hazardous waste generated in July through off-site hazardous waste subcontractor was performed.

Removal of 4,200 gallons of oil for rebate/ recycling was accomplished. Service was performed by an off-site oil subcontractor.

Removal of one 40 cubic yard container of asbestos material was done. Service was performed by an off-site asbestos/nonhazardous landfill subcontractor.

Removal of one 25 cubic yard container of nonhazardous nonregulated material by off-site landfill subcontractor was accomplished. Bionetics personnel performed the bulking of material from drums prior to shipment.

Submitted complete analytical report for 52 cooling tower sampling task received by Office of Environmental Engineering (OEE). Report was submitted one week ahead of deadline received from OEE. Sampling was completed by Bionetics personnel with analytical performed by an off-site subcontractor laboratory.

Received bids from drum/container companies for the supply and reconditioning of DOT approved drums. Request for Proposal (RFP) was sent out in August in response to OEE concerns over both the current prices paid for drums by Center Supply, and the option of reconditioning non reusable drums currently stored at Building 1166.

Received request from OEE for inventory of paint removal material (with possible asbestos contamination) turned in by Building 648 since June 1994. A complete report, including inventory, waste manifest tracking, and disposal facility information, was submitted to OEE.

Received request from LMO for report on 10 transformers from Building 1267. The transformers were drained in August 1996, and moved to property disposition storage area. Report certified transformers were drained of non PCB dielectric fluid by an off-site subcontractor.

b. Recycling

Process and discharge of 2,750 gallons of product water from oil water separator unit at Building 1181. All material was tested with reports submitted to OEE prior to discharge.

Shipped 105 toner cartridges for rebate. Service performed by an off-site toner recycling subcontractor.

Shipped 13.35 tons of white ledger and 1.51 tons of mixed paper for rebate. Service performed by an off-site paper recycling subcontractor.

Paper bailer unit was delivered to Building 1181. Installation and operation expected by the end of October. Use of the paper bailer will increase profit from sale of recyclable paper by 17%. Future re-bid of contract should increase profit by at least 35%.

Request for Proposal sent out to 3 off-site subcontractors for the sale/recycling of 13,044 pounds of lead shot and lead bricks. Bids are due the second week of October, with services to be performed by October 25, 1996. Estimate amount from sale is $2,700.

Weekly progress meetings are proving effective toward providing efficient environmental support.

c. Discharge Compliance

Laboratory and on-site monitoring services for LaRC outfall water monitoring (DEQ Permit No. VA0024741 and HRSD Permit No. 0085) will continue to be performed by an off-site subcontractor laboratory. Bionetics will continue to monitor results, compliance and scheduling for submission to OEE.

d. Training

One Hazardous Materials Handler received *40 Hour Hazwoper* training, and 2 received *Crane Operator* training. One worker completed an annual physical, and one worker received Commercial Driver's License with Hazmat Endorsement.

5. Laboratory Analysis

In addition to specific analysis mentioned elsewhere in this report, routine asbestos, environmental, and industrial hygiene samples were forwarded to off-site laboratories for analyses.

6. Advisory Services

Engineering work orders are routinely reviewed as requested and comments were made or surveys performed for asbestos, radiation protection, or other health hazard control, as required. No work orders were received for review. No specifications or contract submittals were received for review and comment.

7. Industrial Hygiene, Health Physics Training Services

One NASA worker completed initial respirator training this month in one class. Initial respirator training (one to two hour class) is done per IH tasking found in the LaRC Safety Handbook on *Personnel Protection, Clothing, and Equipment*. Two approvals of LaRC Supply stock issues of respiratory protective equipment and supplies were done this month.

No requests for initial training for confined space monitoring equipment operation (combustible gas meters) were received.

A Bionetics IH initiated training program on protective glove use and selection is given on an "as needed" basis. No specialized class was given this month.

One laser training course was conducted.

8. Safety Training

a. Operation of The LaRC CABLEVISION Channel 11

The operation of the LaRC safety channel is currently being done, and no problems are seen with this assignment. The new system is awaiting hookup, and this should eliminate the problem of having to change the construction video to the SEA-J tape everyday between 8:15 and 8:30 AM.

b. Monthly LaRC Safety Newsletter

The Monthly Safety Newsletter is now being sent straight from our office to the LaRC distribution system. We have had very good response to this and will continue to keep it this way. The October newsletter was sent out on October 1, and we should be getting replies soon.

c. Safety Promotion Boards, Buildings 1162 and 1202A

Posters are being changed every 2 weeks, and a reminder is put on the computer. The posters have been screened, and any poster that does not reflect job safety has been discarded. Should

anyone want to place a poster or item in the display cases, prior approval will be obtained from Mr. Gary Carl.

d. Certification of Safety Operators

There are still some expired safety operator cards that have not sent their paperwork yet to be tested. A list have been put together and given to Mr. Carl for action. Personnel who have cards due to expire October, November, and December have been notified and blank request forms have been sent to them.

e. LaRC Gaseous Tube Trailers Certification

Ninety day notices will be sent out as stated and recertification will be done when the individual units are due. The new dates have been entered on the Excel, and the quarterly follow-up will be conducted in November.

f. Testing, Certification, and Recertification of Overhead Crane Operators

There were 2 crane certification classes held in September, and they went well. I have coordinated the scheuling of classes with Mrs. Wooster through November. There have been 85 of the 110 personnel needed to keep 25% trained per year.

g. Safety and Health Training Programs (Develop, Implement, and Provide Training)

1. Material Safety Data Sheets (MSDS) - Initial training*
2. MSDS - Refresher Training
3. Chemical Safety
4. Eye, Hand, and Foot Safety (Industrial Workplace)*
5. Ergonomics*
6. Confined Space Entry*
7. Heat Stress*
8. Cryogenics*
9. Hazardous Gases

* Lesson plans have been completed and approved.

The "*Cryogenics*" lesson plan has been completed and approved, and a class is already scheduled for October. The "*Chemical Safety*" lesson plan is being worked now and should be complete by mid October.

During the month of September, 8 industrial workplaces were visited and booklets on the September safety topic were left. In areas where I could find the FSH, I provided booklets to

place where they would be best utilized. In areas where I couldn't locate the FSH, I left them in the break areas or by the safety board.

There were 4 training classes given during the month in conjunction with the sections' monthly safety meeting. There were 82 personnel trained in these classes. Since May of this year, there have been 381 personnel trained in the short courses.

Announcement of the classes are now being sent out on E-Mail to the FSHs and FCs with a much better response than we had with the Channel 11 notice.

9. Work Orders/Special Tasks (Contracted Out)

Previously identified hazardous wastes generated on-site were identified, advertised for bid, subcontracted out, and removed from the site within the 90-day on-site storage criteria.

As noted elsewhere in this report, radiation dosimetry monitoring services, wastewater and drinking water analyses, and other analytical laboratory support tasks are subcontracted out.

Environmental engineering tasks received are being subcontracted to SAIC engineers who operate out of a separate on-site trailer. Their report of activity is enclosed.

10. Material Expenditures

There were no purchases of high value equipment during the month. Low cost supplies and services were procured using contract money. Routine site administrative, sampling supplies, and equipment are normally obtained through the NASA LaRC acquisition and stock system when available.

11. Health Metrics

TASK DESCRIPTION	METRIC GOAL	QUANTITY PERFORMED	MAN-HOURS per EFFORT	TOTAL Hrs
NRC Violations	---	---		0
EH Audits (IH, HP)	17	IH - 5 HP - 10		IH- 87.5 HP - 40
Safety Permit Evals	10	IH - 4 HP - 5		IH - 40 HP - 50

TASK DESCRIPTION	METRIC GOAL	QUANTITY PERFORMED	MAN-HOURS per EFFORT	TOTAL Hrs
Form 44s (New Chem Review)	–	24		6
Env. Friendly Sub. Chem. Reviews	–	17		4.3
Form 44's (Bldg 1293)	–	26		6.5
Confined Space Permits	2	0		0
Asbestos Permits	10	0		0
Resp. User Activity	5	4		4
NOV by contractor	0	0		—
Haz Waste on site >45 days	0	0		—
Haz/Nonhaz Disposal Costs	20K	$14,469		—
Haz Waste Char. Costs	5.8K	$5,230		—
Form 69's Reviewed	10	HP - 3		HP - 3
Specification Reviews	1	0		0
EH Tng. Sessions (non-Respirator)	3	1 (IH) 1 (laser)		8
EH Lab Costs (IH/ASB)	5.1K	$1,612		—
Reg. Comp. Disc. Found	0.00	0		
Spec. Support Projects >4 Hr tasks	–	* 1		—

* Special support projects in this category for September was the asbestos files research for information on several buildings (8 hours). In August, the 4 special reports should have been reported as: an initial permit, training, and monitoring for methylene chloride use at Building 1250 (9 hrs); refractory ceramic fiber research, discussion at facilities (4 hours); suspect legionella investigation at Building 1268 (17 hours); MEK monitoring at Building 582 (4 hours).

MONTHLY PROGRESS REPORT [redacted]

Deleted 14 CFR 1206.300 (b) (4)

Period Covered: 01 September 1996 - 30 September 1996
Contract: NAS1-19470

This report summarizes the major activities accomplished by Science Applications International Corporation staff during the reporting period.

Pollution Prevention

- Briefed Bert Garrido on the Model Office project at the Sept 5 OEE Business Meeting. We gave a trial run of the briefing to John Lee and Bob Brown prior to the meeting and then made necessary changes. The briefing of the "Model Office" informed everyone of the next steps LaRC needs to take in order to use the success of the project and implement it Center-wide. A policy statement will be made to encourage all employees to use office and paper products with recovered content. This will also allow the Acquisitions Division to replace products with 100% virgin materials with reliable products with recovered content. Employees will be offered only the product with recovered content. We made a list of products with recycled content that have proved reliable for the Model Office. Personnel from [redacted], Boise Cascade, and LaRC met to discuss the pricing and replacement of these office products. Boise Cascade will determine prices based on current LaRC usage of comparable products, and decisions about which products to offer will be based on technical performance as well as price. An additional list was also made for the second phase of testing office products with recovered content. We have established metrics for the Model Office progress. All items procured with recovered content that meet the EPA guidelines will be totaled by cost every month. These items have been tagged in the Boise Cascade Office Product on-line program and results will be sent to Kristen Poultney monthly.

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- Gave a draft copy of the *"Waste Prevention and Office and Paper Purchasing"* Environmental Alert to Ron Krudel and Kim Duncan for review. In order for Acquisitions to replace the virgin office products with the comparable product with recycled content, the wording in the Environmental Alert must be stronger. In order for the virgin items to be flagged and not offered to LaRC employees the wording in the Environmental Alert needed to be stronger. In addition, the procedures that need to be followed if ordering recovered content products from another vendor were added. Corrections were made by John Lee on 9/25.

- Wrote article for the Researcher News to give the Electronics Technology Branch recognition for volunteering to be the "Model Office for Affirmative Procurement" at LaRC. The article also discusses what to look for in the future as far as descriptions of the test reulsts of recovered content products.

- Met with LaRC personnel from OEE, EG&G, and Bionetics to discuss Center-wide conversion of standard 4-foot fluorescent lights to low-mercury fluorescent light tubes. A write-up of this opportunity has been drafted and includes and economic analysis for the replacement of standard fluorescent tubes with low mercury tubes. The draft is complete except for 1996 procurement information. We have been waiting for this information for approximately three weeks. Draft copies of the write-up have been given to Bob Brown, Mason Proctor, Jeff Kirby, and Caroline Diehl to review. The manufacturer was contacted to send a copy of TCLP tests for these lights. LaRC supply is being contacted to discontinue acquisition of high-mercury-content tubes.

- Continued write up for the reusable absorbent pad assessment.

- Met with Lucy Watkins to discuss the contract for the copy machines at LaRC. Lanier Worldwide Inc. has been awarded the cost-per-copy contract to provide copying machines for the Center, effective October 1, 1996. All machines will have the capability to print double-sided copies. These copiers will be able to handle paper with recovered content and, if troubles arises, a copier that will handle this type of paper will be provided. A briefing of the new program and the equipment was held September 18th and 19th at the Pearl Young Theater; the paper for copiers will be provided by using the just-in-time supply methods. All reliable paper tested by the "Model Office" will be posted by stock number in the Researcher News.

- Contacted Southeast and Southern Waste exchanges for information on possible membership. These waste exchanges allow participants to explore alternatives to disposal for hazardous and non-hazardous waste. NASA Wallops Island is a participant in this program and have been contacted to discuss possible hurdles for government agency involvement. Discussed government waste exchange membership with Melissa Robertson of NASA Wallops Island. This project is still under investigation.

- Continued work on the Magnetic Separator for Lead Paint Abatement.

- Attended National Recycling Coalition's annual conference in Pittsburgh, Pennsylvania.

- Provided overheads and documents to Bob Brown for the Sept. 18th discussion of the hydraulic fluid and oil analysis program at the Center. These included a draft letter for tracking policies of the programs, overheads of the tracking spreadsheets, and hard copies of the updated write-ups and discussion issues. We updated the Oil Analysis write-up for the upcoming meeting with OSD to discuss implementation of the oil and hydraulic fluid analysis programs. We attended the meeting with OSD to discuss oil and hydraulic fluid analysis implementation. In attendance were Bob Brown, John Houlahan, Tom Gabney (OSD oil testing) , Alan Henderson (OSD oil testing). Bill Tennis and John Nayadley who will be running the hydraulic fluid analysis program

were invited but did not attend. The meeting went very well and some progress was made for implementation of the oil analysis program.

- Wrote first draft of Environmental Alert to go out to Facility Coordinators requesting information of all oil systems on the Center. This information will be used to implement a proactive maintenance program for oil systems greater than 10 gallons on the Center. The program will allow the Center to trend the oil systems and avoid unnecessary oil and filter changes, as well as detect problems before there is costly equipment failure. All returned information will be sent to Kristen Poultney in order to input data for Tom Gabany, OSD.

- Reviewed hazardous waste records from 1995 and 1996, the 1995 Pollution Prevention Plan, and the facilities chemical inventories, to determine which facilities should be investigated for possible pollution prevention opportunities.

- Determined status of hazardous air pollutant substitution project after Maria and Ed's departure and developed schedule for continuing the project.

- Prepared document for OEE of Pollution Prevention Projects that SAIC conducted in FY 96 with the involved NASA organizations. Gave to Bob Brown on Sept. 30.

Chemical Material Tracking System

- Instructed several facilities on the format for CMTS inventory conversion. The current inventories in the shops range from a list of chemicals to something closer to a complete inventory. We are working with facilities to make the initial inventory entry as easy as possible by giving them a choice of methods for their initial inventory which we will convert and add to the Prolab inventory. Many of the people we have spoken to about inventories are submitting the same inventories that were given to Tricia Romanowski for the EPCRA reports in January/February of 1996.

- Continued to collect inventories from labs for transfer into Prolab. Only six users and EG&G remain to be initially contacted. We are having trouble getting replies from some of the remaining facilities.

- Continued MSDS entry. MSDSs from four facilities remain to be entered. These facilities should be complete by Oct 31, 1996. Data entry for MSDS and inventories will end October 31, 1996.

- Added additional MSDS links to the CMTS web site.

- Finished creating sixteen part MSDS addition and output pages for CMTS On-Line.

- Tested conversion of the MSDS files from their current compressed format to an uncompressed format. Conversion process works well and no problems are expected in the transfer.

- Updated the CMTS contacts database with the completed MSDS, inventory, and corrected personnel information.

- Prepared Form 44 web pages for test run on September 23, 1996. Some of the database tables and pages were reformatted to make them easier to use.

- Finished editing the Form 44 pages to allow editing by the Safety Heads and Industrial Hygiene.

- Attended the working group meeting for test usage of the electronic Form 44. The test of the Form 44's will begin September 23 and continue through October 4, 1996. There will be four facilities participating in the test: 1293A, 1238A, 1267A, and 1200. The next working group meeting will be October 8, 1996 at 8:30 am in the OSEMA conference room. We have received very good response to-date.

- Met with Connie Stott about integrating the Form 44's with LaRC's Bank card web page. She seemed very interested in adding the page. They will begin to integrate the form 44 after October 1. Connie's group is very busy with end of the fiscal year tasks until September 30.

- Wrote a new web page listing the types of toner cartridges being collected for recycling. Dave Steigerwald reviewed this page for it's accuracy.

- Updated the paper pickup schedule webpage.

- Began work on Reuse Facility pages for inclusion in the CMTS On-Line. These pages will be reviewed by OEE before formal posting of the pages.

- Began testing the Form 44 web pages this week. Several bugs have been found and corrected. Five of the testers have already tried the form and we have gotten very positive feedback.

- Continued work on the draft users manual for the CMTS webpages. This manual will be available both in hard copy and on-line.

Air Pollution Control

- Attended meeting with Bill Tennis, Brickey Hughes, and Bob Brown to clarify permit conditions for Building 1215.

- Continued investigation of Virginia Power's Standby Generator Program. Barry Greif (of VA Power) explained some of the factors that are involved - namely electrical capacity, environmental limits, and economic profitability. We spoke with Jim Bostic and Ken Jacobs about the electrical capacity side of the equation, and Robin Rubrecht (of OSD) about the economics. The environmental side should not be a limiting force as we would only need to account for generator hours in our air permit. However, it is unclear how much electrical capacity we have to spare, and Robin explained that LaRC could not produce its own power from diesel fuel any cheaper than it can buy it from VA Power. Thus, LaRC will probably not be interested in this standby program unless there are economic incentives (or rate structures) that we don't yet understand. Barbara has discussed this (and will continue to do so) with Bob Brown.

- Received the air permit for construction of the new (natural gas and oil-fired) east area boilers and for decreasing the annual fuel usage of propane for the sudden expansion burners. A letter of notice that construction has been started and that start-up is expected within 30 to 60 days was promptly sent back to the DEQ (and copied to EPA Region III). Received hard copy of the air permit; made copies for the environmental coordinators of all those facilities affected; and will set up meetings to ensure that everyone understands the permit conditions (both old and new). During the permit process this month we spoke at length with the Virginia DEQ about our impending permit. We provided specific information about the locations of the two boiler facilities as DEQ had to run a model to determine there were no potential 24-hour SOx violations when both facilities run on oil.

- Discussed the revised air program outlook with Bob. The next two months will include more emphasis on the inventory and data collection phase again as there is some concern we may not have identified all of the sources necessary to permit. Our FESOP submittal will again be the emphasis in the November-December time period.

- Caculated August numbers for ODCs, VOCs, and criteria pollutants and provided these numbers to Kelly for the September metrics.

- Received and worked on spreadsheet files from the DEQ which will assist LaRC in the calculations for the remaining unpermitted generators at the Center. This permitting effort will take place over the next several months.

- Received word from Bob that the conversion-to-natural-gas project at the steam plant will happen. We drafted a letter for the DEQ that, pending a conversation with a DEQ permit engineer will be sent. We do not believe a permit is necessary as this is primarily a change in fuels that will lower our emissions, and our overall fuel limits will not change.

- Spoke with Bill Tennis to confirm that, numerically, 19,000 gallons of 0.3% sulfur content fuel is enough to lower the overall sulfur content of the 25,000 gallons of 0.64% sulfur content fuel to the acceptable 0.5% level.

- Received information about the annual meeting of the Virginia Air Pollution Control Board. It will take place in Virginia Beach on the afternoon of October 9. The fall meeting of a section of the Air and Waste Management Association follows on October 10 and 11, also in Virginia Beach, and may contain some speakers or presentations of interest to LaRC. We plan to get a detailed agenda next week.

ENVIRONMENTAL HEALTH AND SUPPORT SERVICES

MONTHLY PROGRESS REPORT

October 1996

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a. Facility Audits

Currently, periodic Industrial Hygiene (IH) audits are required, and a multi-year IH schedule has been in use since April 1, 1996, per technical directions received. The schedule is annual for high and high/medium health hazard areas; once every 3 years for medium health hazard areas; and once every 5 years for low or low/medium health hazardous NASA operations in facilities. Contractor health hazardous operations are not assessed. Trailers, which are used for storage or administrative offices only, are not visited. Eighty-three facility audits were scheduled for 1996.

Industrial Hygiene audits are accomplished in accordance with NASA LaRC worker and management notification procedures. These include advance notification of visits to facility personnel and to the NASA LaRC Personnel office who notifies the Unions.

Surveys for the presence or absence of health hazards, or on the performance of health hazard control equipment, are done if required or requested. Audit and survey data are analyzed, recommendations and observations noted, and summarized in written reports to each facility. Industrial Hygiene checklists were implemented per direction in January, 1996. Information from facility personnel on currency of occupational clinic exams for building personnel are included and sent with the completed report to the NASA Occupational Medicine office for

clinic exam protocol and personnel updating. Per NASA direction, OSHA health related discrepancies found are reported directly to facility personnel, and their follow up compliance actions are reported by them to the NASA Safety office.

Several 1996 audits were completed and reports were sent this month. These were for facilities: 641, 645, 645A, 1202, 1212B, 1212D, 1225, 1229A, and 1247A. To date this year, 78 Industrial Hygiene audits have been completed and reports sent. The 5 remaining 1996 audits had field work completed and reports have been completed. These reports will be sent as soon as our internal quality control reviews are completed.

b. Noise and Hearing Conservation.

In June, 1991, HQ NASA changed its noise monitoring requirements to noise dosimetry of personnel in the Hearing Conservation Program to once every 2 years. Bionetics has initiated a computerized list of identified hazardous noise areas, and the list is being maintained both to schedule survey revisits and to indicate process areas or operations where hearing conservation program participation is required by exposed personnel. No report on completed noise dosimetry monitoring of NASA personnel in was sent this month. Scheduling, field surveys, and report writing are in progress for dosimetry work scheduled for 2 year resurvey in 1996. If contractor personnel are the only individuals in previously identified high noise areas, dosimetry is not scheduled or done per technical directions received.

Special noise studies are also done on new equipment or changed processes as they are identified. Periodic hazardous noise reviews or surveys are normally done in conjunction with facility IH audits to satisfy task requirements found in the LaRC Safety Handbook on the Noise Control and Hearing Conservation Program. No reports on special noise studies were sent this month. Reports on hazardous noise surveys done during audits were sent with the audit reports.

c. Potentially Hazardous Materials.

In mid October, a special report on all active Potentially Hazardous Material Safety Permits and personnel on the Permits was prepared and forwarded to the NASA Risk Manager per his request. Renewal, modification, and audit status is included in this report. Audits of approximately 45 current PHM Permits are performed during periodic IH facility audits and are not reported as a separate audit item.

The Potentially Hazardous Material (PHM) Committee started a revision and rewrite of LaRC Handbook 1710.12 (PHM's) in February 1995. Major rewrite was done on technical sections of the manual. Procedural areas were updated. PHM Committee initial draft review formally started in October 1995 and was finished in early July 1996. The PHM Committee Chairperson intends to send the initial draft out for final type, and then send it out for Center review. This draft will probably be out in late 1996.

d. Confined Space Permitting.

No confined space permits were issued. Permit procedures in the LaRC Facilities Handbook are followed for NASA entry. Site and off-site contractors do their own initial surveys, monitoring, and permitting.

Identification of LaRC confined spaces is a required IH performance task when requested as defined in the LaRC Facilities Handbook. Bionetics has initiated and currently maintains a computerized listing of all LaRC areas previously identified.

e. Asbestos Surveillance and Inspection.

No reports of periodic asbestos inspections of facilities known or suspected to have asbestos containing building materials were sent this month. Scheduling, field inspection, and report writing are in progress. Under this asbestos re-inspection program, personnel in facilities known to have asbestos building materials are notified by letter prior to visits. A 5-year schedule is currently in use. Approximately 150 buildings are known to have asbestos. Baseline surveys were done from 1989 through 1991. Asbestos condition coding is done per 40 CFR 763, and recommendations for removal or repair, when needed, are in the final inspection reports. Building 1230A was previously identified as having no asbestos material. Samples taken this month revealed the presence of asbestos in floor tile and mastic that were previously thought to be asbestos free.

Site visits to assist engineering personnel in identification of asbestos were done. Bulk sampling and identification of asbestos is done to support future NASA engineering construction projects or ongoing maintenance work. This activity was done on a rush (same day, or next morning), or routine basis using off-site accredited laboratory support to help accommodate the construction or maintenance work schedule. Quick verbal reports of results are given to the personnel involved.

Ten asbestos permits for site contractor (EG&G) asbestos work were received this month. Site visits are done to review plans for small jobs by site contractor asbestos personnel. Permits are issued with NASA approval for any job done per procedures in the LaRC Facilities Handbook. Commonwealth of Virginia and Federal EPA notifications are done if needed in conjunction with the permits.

Two formal reports on asbestos monitoring and clearance sampling of EG&G asbestos operations in Buildings 1205 and 1230A were completed and sent this month. Monitoring of site crews is done to assure asbestos hazards are not present to NASA personnel during and upon completion of work. Clearance sampling is done and verbal reports are used to speed the process. Written reports are then done to document conditions noted.

Review of engineering specifications and design submissions for asbestos work are reported in the advisory services section of this Progress Report.

f. Other Industrial Hygiene support.

Special survey or review requests were received and surveys done and reports sent (if needed) for:

- Paint samples taken for lead analyses to support a future project at Building 1230A test tunnel room.

- A request for installation of operating windows in Buildings 1195A and 1195B was reviewed, and a recommendation was made. Personnel wanted windows that could be opened to control their indoor air quality.

- A site visit was done for the area around Building 1288 where particulate matter apparently from a nearby city operated refuse fired steam plant had settled out. The request was referred to Environmental Engineering personnel after the initial site visit.

Requests for urgent support were received this month. Industrial Hygiene personnel do a stop work and immediately respond (site visit) to these type requests. Task duration varies from a few minutes to several hours. Urgent and immediate response requests for support were received for possible health hazards to building personnel for investigation of:

- Report of flammable gas during construction work at Building 648 by an off-site contractor. Site visit done to assist NASA Safety personnel. Initial site visit revealed site personnel (NASA and contractor) suspected decomposition of a strong solution of citric acid in use to clean rust out of a large building HVAC water treatment line. Hydrogen gas was suspected and flames had been observed at opposite ends of the line. Initial verbal request received did not mention this gas and site monitoring was not initially possible. Venting recommendations were made. Gas detectors for hydrogen were subsequently located late that day and monitoring, by request, was done the next day. Another flame, with detonation in the line, had occurred in the line during grinding work. Levels in excess of 100% LEL and 1000 PPM were found with the meter in use. Line venting was recommended and done. Subsequent monitoring and levels were lower. By request, site gas monitoring was done over the next three workdays.

2. Health Physics

Whole body and extremity badges (Thermoluminescent Dosimetry rings) for monitoring personnel ionizing radiation exposures for the month of October were collected for submission

to a contract laboratory (Landauer) for processing. Results of previous monitoring have indicated no exposures above allowable levels.

Routine, as well as special request, Health Physics audits were announced in advance per site procedures and performed on non-ionizing sources in Buildings 1148, 1146, 1247D, and 1208.

Ionizing radiation support was for audits and special request surveys for Buildings 1202, 1254, and 1230.

Two safety permits for NIR activity were processed.

Two training course in laser safety were conducted.

Per NASA request, a mid-month report on non-ionizing (laser) radiation and ionizing radiation Safety Permits and personnel was prepared and forwarded to the Risk Management Branch.

Assisted NASA Langley space systems in the use of Cm^{-244} for space ship launch.

Meeting of both the NIR and IR NASA Safety Committees to discuss third quarter audits and permits.

3. Environmental Sanitation

No significant Centerwide problems were noted.

Two facilities (583 and 1250) had complaints about drinking water. One was a color problem (rust suspected) and the second was taste from a drinking fountain. Site visits were done, and recommendations for new piping, filters, etc. were made.

4. Environmental Tasks and Hazardous Waste Management

a. Hazardous Waste/Recycling

Disposal of hazardous and non-hazardous waste generated in August through off-site hazardous waste subcontractor was performed.

Removal of one 40 cubic yard container of asbestos material was accomplished. Service performed by off-site asbestos/nonhazardous landfill subcontractor.

Supplied 2 emergency rolloff containers for hydraulic oil spill at Building 644. Due to the high Total Petroleum Hydrocarbon (TPH) results from samples taken of the dirt removed from the

site, the containers will be transported out of state to a landfill permitted to handle high TPH soil.

Notified all current subcontractors of exercise of 6-month Option Period to continue services through the end of the Prime Contract. Several of the subcontracts will require additional funds to continue services through the extension.

Received request from OEE for 1995-1996 waste inventories of Buildings 1200 and 1247E. A complete report, including waste descriptions, disposal dates, and container sizes was submitted to OEE.

Received request from Building 1200 for analytical results on 398 capacitors currently stored in Room 133. The capacitors are pending removal to be turned over to Property Disposition. Due to insufficient records/data on the capacitors, an additional representative wipe sample was taken to certify the capacitors are non-PCB prior to removal. Certification letter with complete serial numbers and analytical results will be submitted to LMO in November.

Processed and discharged 2,200 gallons of product water from oil/water separator unit at Building 1181. All material was tested with reports submitted to OEE prior to discharge.

Shipped 75 toner cartridges for rebate. Service performed by off-site toner recycling subcontractor.

Shipped 11.7 tons of white ledger and 1.79 tons of mixed paper for rebate. Service performed by off-site paper recycling subcontractor.

Request for Proposal was sent out to 4 off-site subcontractors for the sale/recycling of 13,044 pounds of lead shot and lead bricks. Bid was awarded to a local lead recycler. The total amount received for the sale of lead was $2,839.

Weekly progress meetings are proving effective toward providing efficient environmental support.

b. Discharge Compliance

Laboratory and on-site monitoring services for LaRC outfall water monitoring (DEQ Permit No.VA0024741 and HRSD Permit No. 0085) will continue to be performed by an off-site subcontractor laboratory. Bionetics will continue to monitor results, compliance and scheduling for submission to the Office of Environmental Engineering.

c. Training

Two Hazardous Material Handlers received DOT training.

5. Laboratory Analysis

In addition to specific analysis mentioned elsewhere in this report, routine asbestos, environmental, and industrial hygiene samples were forwarded to off-site laboratories for analyses.

6. Advisory Services

Engineering work orders are routinely reviewed as requested, and comments were made or surveys performed for asbestos, radiation protection, or other health hazard control, as required. No work orders were received for review. No specifications or contract submittals were received for review and comment.

Per Occupational Medicine personnel request, a brief tour of industrial hygiene health related activities at NASA Langley was given to a physician doing residency at the Eastern Virginia Medical School.

7. Industrial Hygiene, Health Physics Training Services

Seven NASA workers completed initial respirator training this month in 2 classes. Initial respirator training (1- to 2-hour class) is done per IH tasking found in the LaRC Safety Handbook on Personnel Protection, Clothing, and Equipment. One approval of LaRC Supply stock issues of respiratory protective equipment and supplies was done this month.

No requests for initial training for confined space monitoring equipment operation (combustible gas meters) were received.

A Bionetics IH initiated training program on protective glove use and selection is given on an "as needed" basis. No specialized class was given this month.

Two laser training courses were conducted.

8. Safety Training

a. Operation of The LaRC CABLEVISION Channel 11

Operation of the LaRC safety channel is currently being done, and no problems are seen with this assignment. The new system is still awaiting hookup and should eliminate the problem of having to change the construction video to the SEA-J tape everyday between 8:15 and 8:30 AM.

b. Monthly LaRC Safety Newsletter

The Monthly Safety Newsletter is now being sent straight from our office to the LaRC distribution system. We have had very good response to this and will continue to keep it this way. The November newsletter will go out November 1st.

c. Safety Promotion Boards, Buildings 1162 and 1202A

Posters are being changed every 2 weeks, and a reminder is put on the computer. The posters have been screened, and any poster that does not reflect job safety has been discarded. Should anyone want to place a poster or item in the display cases, prior approval will be obtained from Mr. Carl.

d. Certification of Safety Operators

There are still some expired safety operator cards that have not sent their paperwork yet to be tested. A list has been put together and given to Mr. Carl for action. Personnel who have cards due to expire November and December have been notified, and blank request forms have been sent to them.

e. LaRC Gaseous Tube Trailers Certification

Ninety day notices will be sent out as stated, and recertification will be done when the individual units are due. The new dates have been entered on the Excel database and the quarterly follow-up will be conducted in November.

f. Testing, Certification, and Recertification of Overhead Crane Operators

There were 2 crane certification classes held in October, and they went well. Mrs. Wooster and I have scheduled classes through November 1996. Ninety-nine persons have been trained of the 110 personnel needed to maintain the goal of 25% trained annually.

g. Safety and Health Training Programs (Develop, Implement, and Provide Training)

1. Material Safety Data Sheets (MSDS) - Initial training*
2. MSDS - Refresher Training
3. Chemical Safety*
4. Eye, Hand, and Foot Safety (Industrial Workplace)*
5. Ergonomics*
6. Confined Space Entry*
7. Heat Stress*
8. Cryogenics*

9. Hazardous Gases

* Lesson plans have been completed and approved.

The *"Chemical Safety"* lesson plan has been completed and approved. The next class being developed is the *"Hazardous Gases"* lesson, and it should be in place by late November.

During the month of October, 7 industrial workplaces were visited, and booklets on the October safety topic were left. In areas where I could find the FSH, I gave him the booklets to place where he felt would be best utilized. In areas where I couldn't locate the FSH, I left them in the break areas or by the safety board.

There were 5 training classes given during the month in conjunction with the section's monthly safety meeting. There were 68 personnel trained in these classes. Since May of this year, there have been 449 personnel trained in the short courses.

Announcement of the classes now being sent out on E-Mail to the FSH's and FC's as well as being included in the Safety News Letter.

9. Work Orders/Special Tasks (Contracted Out)

Previously identified hazardous wastes generated on-site were identified, advertised for bid, subcontracted out, and removed from the site within the 90-day on-site storage criteria.

As noted elsewhere in this report, radiation dosimetry monitoring services, wastewater and drinking water analyses, and other analytical laboratory support tasks are subcontracted out.

Environmental engineering tasks received are being subcontracted to SAIC engineers who operate out of a separate on-site trailer. Their report of activity is enclosed.

10. Material Expenditures

There were no purchases of high value equipment during the month. Low cost supplies and services were procured using contract money. Routine site administrative, sampling supplies, and equipment are normally obtained through the NASA LaRC acquisition and stock system when available.

11. Health Metrics

TASK DESCRIPTION	METRIC GOAL	QUANTITY PERFORMED	MAN-HOURS per EFFORT	TOTAL Hrs
NRC Violations	—	—		0
EH Audits (IH, HP)	17	IH - 9 HP - 6		IH- 157.5 HP - 24
Safety Permit Evals	10	IH - 0 HP - 2		IH - 0 HP - 20
Form 44s (New Chem Review)	–	9		2.3
Env. Friendly Sub. Chem. Reviews	–	17		4.3
Form 44's (Bldg 1293)	–	26		6.5
Confined Space Permits	2	0		0
Asbestos Permits	10	10		15
Resp. User Activity	5	3		3
NOV by contractor	0	0		—
Haz Waste on site >45 days	0	0		—
Haz/Nonhaz Disposal Costs	20K	$15,473		—
Haz Waste Char. Costs	5.8K	$3,590		—
Form 69's Reviewed	10	0		0
Specification Reviews	1	0		0
EH Tng. Sessions (non-Respirator)	3	0 (IH) 2 (laser)		8
EH Lab Costs (IH/ASB)	5.1K	$578		—
Reg. Comp. Disc. Found	0.00	0		

TASK DESCRIPTION	METRIC GOAL	QUANTITY PERFORMED	MAN-HOURS per EFFORT	TOTAL Hrs
Spec. Support Projects >4 Hr tasks	–	* 1		—

* Special support projects in this category for October was the site support work to monitor suspected hydrogen gas concentration from the off site contractor construction work at Building 648 (16 Hrs).

MONTHLY PROGRESS REPORT [redacted]

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Period Covered: 01 October 1996 - 31 October 1996
Contract: NAS1-19470

This report summarizes the major activities accomplished by Science Applications International Corporation staff during the reporting period.

Pollution Prevention

- Updated OEE's monthly pollution prevention metrics.

- Began and worked extensively on the 1996 update of the Center's Pollution Prevention Plan.

- Met with Sue Greiner and Josh Cothran of the New Horizons Governor's School. We will again participate in the Governor's School Mentorship program. Josh will be working on several projects throughout the year. The main project that we plan to have Josh work on is the Oil Analysis Testing project. He will assist SAIC with the implementation and tracking of the oil analysis system.

- Met with Tom Gabany to discuss implementation and tracking of the oil analysis program. Josh will be starting the tracking spreadsheet and assisting Tom with the implementation in any way. We will meet with Tom weekly to discuss the progress and next steps for this program.

- Reviewed evaluation sheets for HAP substitutions. Met with the SELIG Chemical Corp. representative to investigate parts washer tank solvent alternatives at building 1247E. Samples of substitutes have been delivered for evaluation.

- Conducted pollution prevention assessments at buildings 1244 and 1293A. Investigations at these facilities were centered on reducing wastes listed in OEE's 1995 and 1996 waste disposal records. SAIC is working with NASA personnel to identify pollution prevention opportunities.

- Spoke with Terresa Elliot about telephone book recycling. Currently there is no program set up to recycle telephone books at LaRC. Last year employees were instructed to put used telephone books in their mixed paper collection bins for the mixed paper contractor to pickup. The current contractor for mixed paper doesn't allow telephone books, therefore options for recycling the books are being investigated.

- Ordered article from the technical library titled "A History of Scrap Metal Market Prices-1996 Update". The article should be available in about two weeks. This will assist LaRC in analyzing the scrap market prices for the new contract.

- Conducted pollution prevention assessment at building 1225. The investigation targeted wastes listed in OEE's 1995 and 1996 waste disposal records for reduction. Waste coolants and cutting fluids are the largest waste streams at this facility. SAIC is working with NASA personnel to identify and implement pollution prevention opportunities at this location.

- Made overheads for Bob Brown to present at the OEE Business Meeting. The overheads indicated cost avoidance and cost savings from predictive testing and inspection with the oil analysis equipment. The total cost avoidance in the last 4 months was $832,000 and the total cost savings was $18,000.

- Obtained the Affirmative Procurement Reporting System (APRS 96) from the Department of Energy, Office of Pollution Prevention. The APRS provides electronic reporting of data required by Executive Order 12873. This reporting system is installed on Kristen Poultney's computer and will be used once NASA LaRC establishes personnel responsibilities in their Affirmative Procurement Program.

- Prepared and submitted Purchase Request (PR) to Bob Brown for the second testing group of office products with recovered content. An article on this project was published in the October 18th Researcher News.

- Began updating "Model Office" product list. We are working with Boise Cascade to compare products with recovered content versus their comparable original product. The completed list will eventually be given to John Lee to decide which products will be available to LaRC employees through the JIT system. SAIC met with Kim Duncan and a Boise Cascade representative, Linda Paradise, to discuss next steps with the "Model Office". A NIB/NISH products catalog will be acquired to order the required products. The just-in-time tracking program and web-site need to be updated to include the new products with recovered content and their costs. Requested environmentally preferred products that couldn't be found in the Boise Cascade Catalog are being investigated by Linda Paradise.

Deleted 14 CFR 1206.300 (b)(4) [redacted] will be out on medical leave beginning November 13, 1996. It is expected that she will be out of the office for at least four weeks.

Chemical Material Tracking System

- Drafted a briefing for the Director and Group Directors on the CMTS. The briefing was reviewed by Bob Brown and John Lee. Bob and John have made suggestions and these changes will be made during the next month. A briefing for the Division/Office level will be developed for review during the first week of November.

- Completed MSDS entry. The last of the MSDSs from 1244 and 1230 were completed the last week in October. These two facilities were the last on the list of facilities with MSDSs. New MSDS's will be entered by the Judith Smith of Bionetics as needed.

- Continued to work with facility personnel on compilation of inventories. No additional problems were identified. To date, 31 inventories have been completed with 29 inventories outstanding. We have ten other facilities to contact for inventories. Inventories should be completed sometime in December.

- Completed the initial Q/A on some of the completed inventories.

- Added some administration web pages to the Reuse Facility and MSDS pages.

- Updated the Contacts database.

- Completed the Form 44 integration into the CMTS on-line. Several other pages for the Form 44 were updated as well as the instruction sections. Some of the changes made to the Form 44 pages were suggestions by the Form 44 test group.

- Finished integration of the Form 44A with the exception of the Add-to-Inventory sections of the page. We will continued to work on the Add-to-Inventory functions of this page.

- Met with Charlie Cockrell, John Lee, and Bob Brown to discuss the status of the CMTS server. The 100 NT user licenses that were ordered have not been delivered. Charlie will try to find out a date for delivery of these items. We also discussed getting access to the new server for [redacted] and [redacted] so that progress can be made with getting the CMTS On-line pages and data files setup and getting information transferred over from Prolab to CMTS On-line. It is our understanding that SAIC will be able to setup user accounts and manage the server resources as necessary to run the CMTS On-line. SAIC will not be allowed to change the Windows NT settings. Deleted 14 CFR 1206.300 (b) (4)

- Revised the CMTS implementation schedule based on the current situation with the server and access to the server. A revised schedule is attached. At this point in time, it is becoming questionable whether or not we can still meet the end of December 1996 goal to have the CMTS completely up and running. We will give it our best effort. The item that will make implementation by the deadline the hardest will be getting all of the users trained on CMTS and the Facility Safety Coordinators trained on the use of the new electronic Form 44s.

- Met with Chuck Wilson of NCI to discuss moving the Prolab/Terms and CMTS data to the new server. Chuck will move the Prolab/Terms and other materials that we need to get the CMTS On-line up and running. This may change based on our

conversations with Charlie Cockrell earlier. SAIC would prefer to do all the moving of CMTS data and programs to the new server. This will assure that everything is setup as it needs to be without having too many layers of people involved in the management of the CMTS.

Air Pollution Control

- Prepared our first quarterly fuel report for the DEQ under our new permit. We will provide this report every January, April, July, and October concerning what oil was received in the previous calendar quarter. This first report was very short as no fuel oil was received in July, August, or September.

- Attended the annual meeting of Virginia's Air Pollution Control Board and the fall meeting of the local Air & Waste Management Association on October 9 and 10. There are a number of ozone-related regulations discussed that do not currently affect LaRC. If EPA revises the ozone standard however, the Tidewater region could become a non-attainment area and be required to follow additional regulations. It will be helpful to know what these emission standards are as we specify requirements for new and modified sources at the Center.

- Distributed copies of the new air permit and discussed compliance issues with individuals in Buildings 1215 and 1221 that are affected. [redacted] met with Dan McGowan at Building 1215 to discuss fuel use record keeping. There is already an appropriate fuel use recording system, and he has established a folder for maintaining personnel training records. [redacted] also met with Beverly Anderson at Building 1221. She is in the process of setting up a fuel use recording system and personnel training folder similar to the ones at the steam plant. She also asked about what would be necessary in order to use hydrogen as an alternate fuel to propane. We discussed both state permitting requirements that could take three months as well as simple notification letters to the state that could take three weeks. The one outstanding permit compliance meeting is with Dave Rollins at Building 1237, and this meeting will be set up soon.

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- Made comments on an e-mail from Bill Tennis about contract specifications for ordering #2 fuel oil for the steam plant.

- Prepared e-mail for Sparky Lisle (of the Virginia DEQ) concerning the boiler conversion to natural gas project. LaRC had received multiple vendor suggestions to not install flue gas recirculation (FGR) technology on the three boilers currently without it. Their theory was that LaRC could reduce its NOx emissions by simply not using the air heaters that are currently used. Sparky's reply indicated that FGR is not necessarily required, but he expressed concern about any increase to our SOx emissions due to the potential of an increased fuel rate. [redacted] looked into the projected emissions and whether they might be considered appropriate. Sparky Lisle then explained that LaRC can reduce some risk about the uncertainty of emissions by

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specifically using FGR rather than relying on different vendor configurations. [redacted] relayed this to Bob Brown and Bill Maynard who confirmed that FGR looks to be the preferable decision due to the prohibitive cost of the air economizers and the negligible overall effect of the pre-heaters. The added fuel efficiency of FGR will also help compensate for the loss of the efficiency of the pre-heaters.

- Spoke with Dan McGowan at Building 1215, Lisa Jones at Building 1297, and Addison Inge at Building 1202 about back-up generators in their respective areas that will be included in our operating permit effort. Dan McGowan also helped identify other individual sources that use diesel fuel (or #2 oil) for this effort. Our current thinking is to set fuel limits on the entire Center's usage rather than for individual points. The only concern that remains is if planning for a worst case scenario forces LaRC to plan for a higher quantity of emissions that will never actually occur.

- Spoke with Craig Cleckner about the proposed 100 hp boiler at Building 646 on the East Side. Depending on its design, this boiler may be small enough to not require new source permitting and can simply be included in our operating permit effort.