

PURPOSE

On March 10, 2010, Consolidated Safety Services Inc. (CSS) industrial hygiene personnel conducted a limited bulk sampling of suspected asbestos containing materials in the Control Room of building N234A. The purpose of the task was to determine if the upcoming renovations in the Control Room will be impacting any asbestos containing materials. This report documents the findings and recommendations resulting from the industrial hygiene consulting services conducted in the Boiler House on insulation found on the piping and boiler stack of building N234A of the NASA Ames Research Center (ARC).

BACKGROUND

At the request of the Safety, Health, and Medical Services Division, Code QH, CSS personnel performed a limited asbestos survey in areas identified by Fred Jones, code JCE, as those scheduled to be impacted by the current renovation of new control panel equipment in the control room. Jennifer Morris, Industrial Hygienist and Certified Asbestos Consultant from CSS, performed the asbestos survey.

SAMPLING AND ANALYTICAL METHOD

Eight (8) bulk samples from suspect contain building materials were sampled from the control room of building N234A. The asbestos bulk samples were submitted to EMSL Lab, Inc., San Leandro, CA., an AIHA accredited laboratory and participant in NVLAP, for analysis of asbestos content. The samples were analyzed by EPA 600/R-93/116 method using polarized light microscopy (PLM).

FINDINGS AND DISCUSSION

The laboratory report indicates that asbestos is present in the 9x9 floor tiles in the control room. The laboratory results are summarized in Table 1 below.

Table 1. Building N234A Control Room Bulk Samples for Asbestos Content – March 10, 2010

Sample No.	Location / Material Description	Asbestos Concentration*	NESHAPS Category	OSHA Class of Work
031010-N234A01	9x9 floor tile/control room floor	5% Chrysotile	Cat I –Non Friable	Class II
031010-N234A01	Mastic under floor tile	ND	NA	NA
031010-N234A02	Drywall	ND	NA	NA
031010-N234A02	Joint Compound	ND	NA	NA

Sample No.	Location / Material Description	Asbestos Concentration*	NESHAPS Category	OSHA Class of Work
031010-N234A-03	Baseboard Mastic	ND	NA	NA
031010-N234A-04	Baseboard	ND	NA	NA
031010-N234A-05	Wall Insulation	ND	NA	NA
031010-N234A	Black Panel	ND	NA	NA

**The NASA Ames Asbestos Management Plan has defined asbestos containing materials as those materials that contain greater than 0.1% asbestos.*

RACM-Regulated Asbestos Containing Material

ND-No Asbestos Detected

CONCLUSION

The 9x9 floor tiles located in the main area of the control room contain asbestos.

RECOMMENDATIONS

If the scheduled renovation impacts the asbestos containing 9x9 floor tiles than workers with asbestos removal training should remove these tiles. If more the 100 square feet of the 9x9 floor tile are impacted than a registered abatement contractor should perform this work using trained asbestos workers with in a class II regulated area. The findings of this report should be included in the hazardous materials section of the construction plans for the renovation project.

Asbestos abatement control measures shall be taken to prevent environmental releases of asbestos. The policies and procedures established in AHB 1700.1 Chapter 30, Asbestos Management Plan and the applicable sections of the Ames Standard Construction Specification shall be followed. The NASA ARC Asbestos Management Plan and applicable Federal, State, and Local Governmental Regulations pertaining to handling, disturbance, removal, storage, and disposal of asbestos containing materials must be adhered to.

REFERENCES

NASA Ames Health and Safety Plan, Chapter 30 Asbestos Management Plan

NIOSH Manual of Analytical Methods (NMAM®), 4th ed., DHHS (NIOSH) Publication 94-113 (August, 1994), Cassinelli, M.E. & O'Connor, P.F. (pfo1@cdc.gov), Eds.

OSHA Technical Manual, Directive no. TED 1-0.15A, Occupational Safety and Health Administration (January, 1999).

29 CFR 1910.1000, 1910.1001 U.S. Occupational Safety and Health Administration.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Jennifer Morris
CSS, Industrial Hygienist
CAC, # 96-2013

Attachments

Appendix 1-
Laboratory
Analytical
Report

Appendix 2-
Photos of Sample
Locations & Damaged Materials



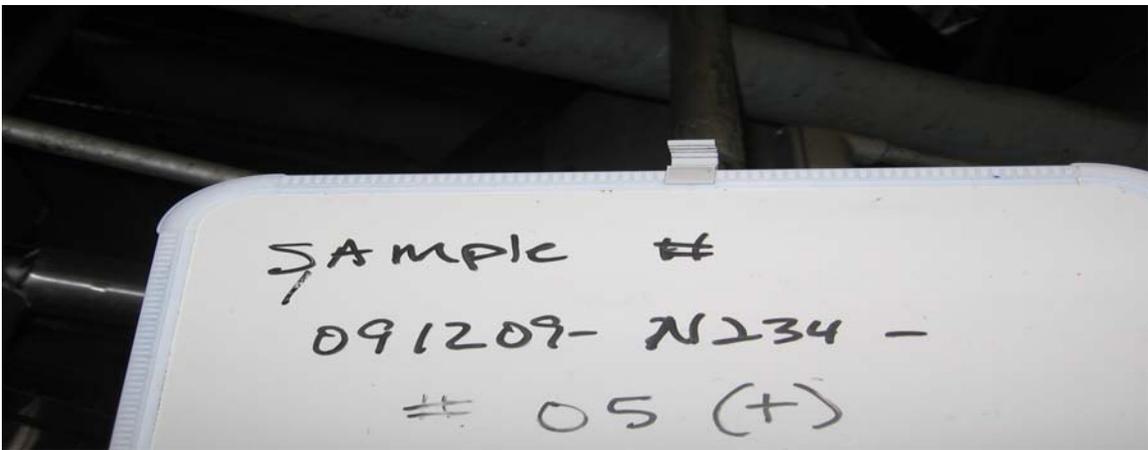
Pictures of: Sample Number N234-05TSI Description AUX EXH
Piping running from third floor tank to 1st floor tank.



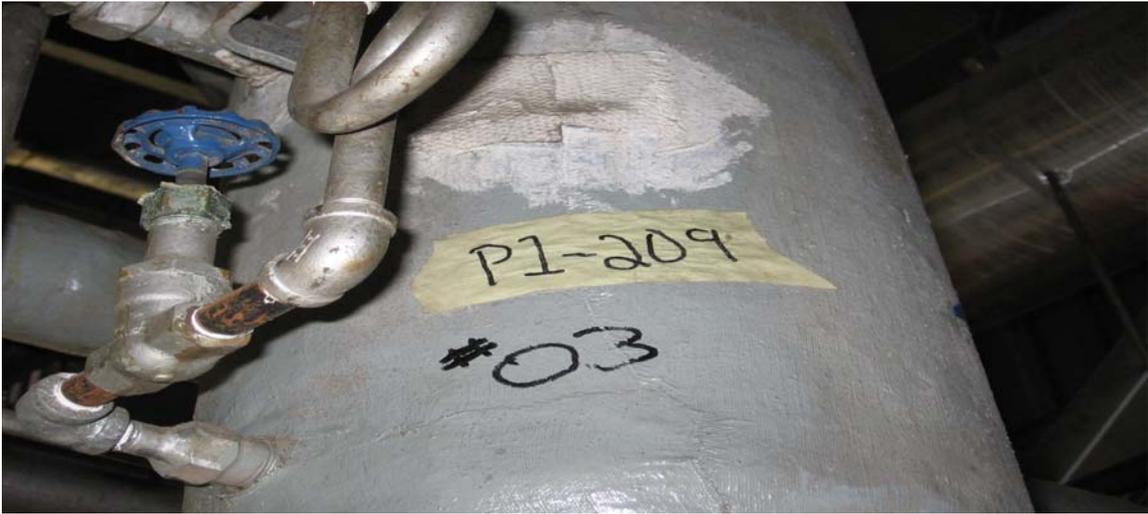
Picture of Sample Number N234-03TSI: Large piping going into tank on 2nd floor.



Asbestos Containing Damaged Piping outside under stairwell on west side of building: Sample number 091209-N234-10



Pictures of sample 091209-N234A-05 Asbestos Containing Insulation of Horizontal Pipe running north and south across boiler house about 6" diameter and about 8 feet off the ground. Connects to the boiler and some damage was observed.



Sample Number 091209-N234-03 Asbestos Containing Insulation
1st Floor. Damaged jacket observed



Sample Number 001209-N234-04: Damaged jacket observed



Sample Number N234-02TSI: boiler stack with some damaged jacket observed.