Program Director: Gurumurthy Ramachandran, PhD

Program Area: Industrial Hygiene

Table 1a Academic Training Report

Previous Budget Period: July 1, 2013 to June 30, 2014

Degree Awarded	How Does Degree Read?	Total # Applicants to Degree Program	Total # Applicants Admitted to Degree Program	# Full- Time Trainees Enrolled ¹	# Full- Time NIOSH- Supported Trainees	# Part- Time Trainees Enrolled	# Part- Time NIOSH- Supported Trainees	# Trainees Graduated
Baccalaureate								
Master's degree								
	Master of Public Health	6	0	1	1	4	1	2
	Master of Science	6	4	7	5	1	0	0
Doctorate degree								
	Doctor of Philosophy in Environmental Health	3	1	5	4	1	0	1
Post-doctoral (Formally registered Occupational Medicine residents in all years of the residency.) ³								

Refer to: Supplemental Instructions, pages 10 and 11. Provide Table 1a for each academic program.

¹ Trainee counts include all students in the approved programs.

³ In this case, there may be double counting between Masters and Post-doctoral (OM) categories.

Program Director: Gurumurthy Ramachandran, PhD

Program Area: Industrial Hygiene

Table 1b Academic Training Report Since Beginning of Project Period³

Degree Awarded	How Does Degree Read?	Total # Applicants to Degree Program	Total # Applicants Admitted to Degree Program	# Full- Time Trainees Enrolled ¹	# Full- Time NIOSH- Supported Trainees	# Part- Time Trainees Enrolled	# Part- Time NIOSH- Supported Trainees	# Trainees Graduated
Baccalaureate								
Master's degree								
	Master of Public Health	29	10	7	5	10	9	7
	Master of Science	19	9	8	7	3	3	5
Doctorate degree								
	Doctor of Philosophy in Environmental Health	14	4	6	4	4	2	2
Post-doctoral (Formally registered Occupational Medicine residents in all years of the residency.) ²								

Refer to: Supplemental Instructions, page 11. Provide Table 1b for each academic program.

¹ Trainee counts include all students in the approved programs.

² In this case, there may be double counting between Masters degree and Post-doctoral categories.

³ Beginning of project period = start date of prior competing award.

Program Director: Gurumurthy Ramachandran, PhD

Program Area: Industrial Hygiene

Table 2
Trainees Supported Since Beginning of Project Period
Progress Report for Competing Applications

Trainee ID by year entered program Year 1: July 1, 2010 to June 30, 2011	Identify NIOSH support with (N)	Identify Under Represented Minority with (URM)	Year Entered Program (уууу)	Trainee's Previous Institution	Highest Degree at Program Entry	Year Previous Degree Awarded (уууу)	For OM Trainees List Previous Residency Training Specialty	Name of Research Mentor (If applicable)	Title of Research Project (If applicable)
100263	N	URM	1/5/2006	Univ Puerto Rico Mayaguez	Masters	2001		Raynor, P	Human time activity patterns for use in community based risk assessment
100233			1/20/2004	Univeristy of South Florida	Masters	1996		Ramachandran, G	Professional judgment in industrial hygiene decision-making
100275	N		9/1/2007	West Virginia University	Bachelors	1987		Raynor, P	Effects of charge neutralization on aerosol trajectory through an electrical field
100296	N		1/13/2007	Medical College of Ohio	Masters	2005		Ramachandran, G	Exposure modeling, heuristics, and industrial hygiene decision making
100285		URM	9/1/2008	University of Minnesota	Masters	2008		Ramachandran, G	Exposure reconstruction for asbestos and silica in the iron

								mining industry
100295	N	URM	9/1/2009	University of Minnesota	Masters	2009	Ramachandran, G	Exposure assessment for workers in the oil spill clean up operations after the Deepwater Horizon explosion
100312	N		9/1/2009	University of Minnesota	Bachelors	2004	Ramachandran, G	Fit Testing of Hearing Protection in a Large Occupational Survey
100311	N		9/1/2009	University of Minnesota	Bachelors	2007	Brosseau, L	Respiratory Protection for Private Pesticide Applicators
100246	N		9/1/2009	University of Wisconsin	Bachelors	2005	Brosseau, L	Real-Time Fit of a Respirator during Simulated Healthcare Tasks
100309	N		9/1/2009	University of Minnesota	Bachelors	1996	Brosseau, L	No Topic, Discontinued
100308	N		9/1/2009	Purdue University	Bachelors	2008	Ramachandran, G	A comparative review of statistical interpretation stretagies for occupational air
100302	N		9/1/2009	University of Minnesota	Bachelors	1994	Raynor, P	Comparative Emissions of Random Orbital Sanding Conventional and Self-Generated Vacuum Systems
100303*	N		9/1/2009	University of North Dakota	Bachelors	1999	Raynor, P	Comparison of the Within-Location Variability to the Between-Worker Variability of Airborne Particle Concentrations in

								a Taconite Mining Operations
100305*			9/1/2009	University of Minnesota	Bachelors	2008	Brosseau, L	No topic. Discontinued
100306*	N		9/1/2009	Hamline University	Bachelors	2009	Raynor, P	Analysis of Mouse Urinary Protein Data at University of Minnesota Research Animal
100319	N		9/1/2010	University of Minnesota	Bachelors	1986	Raynor, P	Noise Reductions Associated with Air Nozzle Changes on a Punch Press
100325	N		9/1/2010	College of Saint Scholastica	Bachelors	1989	Raynor, P	Noise Exposures for Law Enforcement Officers at Collegiate Hockey Games
100324			9/1/2010	University of Iowa	Masters	1997	Brosseau, L	No topic. Discontinued
100343	N	URM	9/1/2010	University of Minnesota	Masters	2010	Raynor, P	Working title: Effects of Spray Surfactant and Particle Charge on Respirable Dust Control
100318*		URM	9/1/2010	University of Minnesota	Bachelors	2004	Raynor, P	Evaluating the Performance of a Surface Area Monitor and an Ultrafine Particle Counter using a Differential Mobility Analyzer
Year 2: July 1, 2011 to June 30, 2012								
100339	N		9/1/2011	Bemidji State University	Bachelors	2008	Ramachandran, G	Hearing Protection Attenuation Values over Time in a Population of

100338	N		9/1/2011	University of Miami	Doctoral	2006	Ramachandran, G	Manufacturing Workers Using the E-A-Rfit Validation System No topic. Discontinued
100344	N		9/1/2011	University of Minnesota	Masters	2002	Raynor, P	Working title: Evaluating the effectiveness of workplace safety interventions in university veterinary medical clinics
100331*	N		9/1/2011	Florida State University	Bachelors	2004	Ramachandran, G	Effect of Various Control Measures on Concentrations of Airborne Laboratory Animal
100341*	N		1/1/2012	Saint Catherine University	Bachelors	1993	Raynor, P	Flow Rate and Collection Efficiency of the MobilAir Xtractor 400 (Max400)
Year 3: July 1, 2012 to June 30, 2013								
100345	N	URM	1/1/2013	University of California	Bachelors	2012	Ramachandran, G	To be determined
100346	N		1/1/2013	Minnesota State University Moorhead	Bachelors	2008	Raynor, P	To be determined
100347	N		9/1/2012	Gustavus Adolphus College	Bachelors	2011	Raynor, P	Compressed Air Noise Reduction Among Air Guns in R&D Environments
100348	N		9/1/2012	University of Wisconsin	Bachelors	2010	Raynor, P	Comparison of Gasoline and Diesel-Powered Vehicles for Employee Exposure to Diesel Particulate

								Matter
Year 4: July 1, 2013 to June 30, 2014								
100355	N	URM	9/1/2013	TW - Chang Gung University	Bachelors	2008	Ramachandran, G	Mouse Urine Protein Exposure in an Animal Care Facility
100356			9/1/2013	University of California	Masters	1996	Ramachandran, G	Dermal exposure assessment modeling and validation
100357	N		9/1/2013	University of Minnesota	Bachelors	2013	Raynor, P	To be determined
100358		URM	9/1/2013	Xi`an Jiaotong University	Masters	2009	Ramachandran, G	To be determined
100359	N		1/1/2014	University of Minnesota	Bachelors	2012	Ramachandran, G	To be determined
Year 5: July 1, 2014 to June 30, 2015								
100360	N		9/1/2014	University of Minnesota	Bachelors	2010	To be determined	To be determined
100361		URM	9/1/2014	China University of Geosciences	Bachelors	2013	To be determined	To be determined
100362	N	URM	9/1/2014	Southern Illinois University	Masters	2011	To be determined	To be determined
100363	N		9/1/2014	Saint Olaf College, MN	Bachelors	2009	To be determined	To be determined

^{*}Students also enrolled in HSAT program.

Refer to: Supplemental Instructions, page 11. Provide Table 2 for each academic program.

¹ List trainees supported since the last competing renewal application, by year. Beginning of project period = start date of previous competing award.

² Trainee counts include all students in the approved programs.

Program Director: Gurumurthy Ramachandran, PhD

Program Area: Industrial Hygiene

Table 3
Tracking Graduates-Academic Training Report¹
Since Beginning of Project Period

Trainee ID	Identify NIOSH support with (N)	Identify Under Represented Minority with (URM)	Date Entered Program (mm/yy)	Date Degree Awarded (mm/yy)	Degree Awarded (MS, MPH, DrPH, PhD, etc.)	Specialty Area of Degree (IH, OHN, OS, etc.	Date of Certificate of Completion (for Occ Med and other Certificate programs) (mm/yy)	Current Employment (Job Title/Employer/2 digit NAICS Code of Employer)	Employed in OS&H Field or Enrolled in OS&H Academic Program? Y/N
Year 1: July 1, 2010 to June 30, 2011									
100233			1/20/2004	12/23/2010	PhD	IH		Corporate Industrial Hygiene Manager, 3M Company (NAICS 33)	Υ
100303*	N		9/1/2009	5/31/2011	MPH	IH		Industrial Hygiene Officer, U.S. Navy (NAICS 92)	Y
Year 2: July 1, 2011 to June 30, 2012									
100312	N		9/1/2009	12/16/2011	MS	IH		Industrial Hygienist, 3M Company (NAICS 33)	Y
100311			9/1/2009	7/29/2011	MPH	IH		Industrial Hygienist, 3M Company (NAICS 33)	Y
100302			9/1/2009	1/18/2012	MPH	IH		Environmental Manager, M. A. Mortenson Company in Minneapolis (NAICS 33)	Υ
100306*	N		9/1/2009	10/31/2011	MS	IH		Junior Scientist, Department of Medicinal Chemistry, University of Minnesota (NAICS 61)	N
Year 3: July 1, 2012 to June 30, 2013									
100319	N		9/1/2010	11/30/2012	MS	IH		Industrial Hygiene Specialist,	Υ

							Flint Hills Resources, St. Paul, MN (NAICS 54)
100318*		URM	9/1/2010	10/15/2012	MPH	IH	Project Scientist, Y Environmental Resources Management, St. Paul, MN (NAICS 54)
100331*	N		9/1/2011	5/31/2013	MPH	IH	Advanced Industrial Hygienist, 3M Corporate Research & Development Lab Safety Group, Maplewood, MN (NAICS 33)
Year 4: July 1, 2013 to June 30, 2014							
100285		URM	9/1/2008	8/30/2013	PhD	IH	Post-doctoral Research Y Associate, National Cancer Institute, Bethesda, MD (NAICS 54)
100311	N		9/1/2009	9/30/2013	MPH	IH	Health and Safety Specialist, Y Bay West LLC, St. Paul, MN (NAICS 54)
100308	N		9/1/2009	11/27/2013	MPH	IH	Health, Safety & Y Environmental Manager at Akzo Nobel Coatings, Warsaw, Indiana (NAICS 33)
100355	N	URM	9/1/2013	6/30/2014	MS	IH	Corporate Industrial Hygienist, Y Tenneco Company, Illinois
100347	N		9/1/2012	5/30/2014	MS	IH	Industrial Hygienist, 3M Y Company (NAICS 33)

*Students also enrolled in HSAT program.

Refer to: Supplemental Instructions, pages 10 and 11. Provide Table 3 for each academic program.

¹ Graduate counts include all trainees graduated from the approved programs. Beginning of project period = start date of prior competing award.