

**ATTACHMENT J-5**  
**WORKLOAD INDICATORS**

**FOR**

**MEDICAL AND ENVIRONMENTAL**  
**SUPPORT CONTRACT (MESC)**

<b>Work Requirement #</b>	<b>WBS</b>	<b>Section</b>	<b>WLI Definition</b>	<b>WLI (annual)</b>
1.5.2-1	1.5.2	Financial Management System	Active Program Funding Years	5
1.5.2-2	1.5.2	Financial Management System	Active Unique Project Numbers	300
1.5.2-3	1.5.2	Financial Management System	Elements of Costs	16
1.5.2-4	1.5.2	Financial Management System	Active Customer Codes	60
1.5.2-5	1.5.2	Financial Management System	Active Cost Pools	7
1.5.2-6	1.5.2	Financial Management System	WBS breaks Reported in 533	82
1.5.2-7	1.5.2	Financial Management System	Operating Plan Budgets	1
1.5.2-8	1.5.2	Financial Management System	Operating Plan Budget Revisions	3
1.5.2-9	1.5.2	Financial Management System	Special Budget Exercises incl Decision Packages	50
1.5.2-10	1.5.2	Financial Management System	Special Presentations to NASA Mgrs	1
1.5.2-11	1.5.2	Financial Management System	Cost Reporting to Govt:	
1.5.2-11a	1.5.2	Financial Management System	533	12
1.5.2-11b	1.5.2	Financial Management System	Supplemental Reports	84
1.5.2-11c	1.5.2	Financial Management System	Unique Task Numbers	85000
1.5.2-12	1.5.2	Financial Management System	Customer Queries for cost validation	200
1.5.2-13	1.5.2	Financial Management System	Govt Expedited Data Reporting Exercises	6
1.5.2-14	1.5.2	Financial Management System	Working group or financial status meetings with financial community	12
1.5.2-15	1.5.2	Financial Management System	Resubmission of Proposals resulting from DCAA Audits	14
2.1-1	2.1	Medical Records Maintained	Medical Records Maintained	45375
2.3.1-1	2.3.1	Health Examinations	Part I - Clinical labs Visits	7590

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2.3.1-2	2.3.1	Health Examinations	Part II - Physician Consultations	5362
2.3.1-3	2.3.1	Health Examinations	Part III - Exercise Stress Test or further testing	1155
2.3.1-4	2.3.1	Health Examinations	Medical Treatments	1485
2.3.1-5	2.3.1	Health Examinations	Influenza immunizations	3300
2.3.2-1	2.3.2.b	Travel Medicine	Travel Packets	25
2.3.2-2	2.3.2.c	Health Education and Wellness	Cardiovascular screening (Risk assessment plus blood pressure and blood test)	6200
2.3.2-3	2.3.2.c	Health Education and Wellness	Colorectal cancer screening (Hemocult slide plus consult)	125
2.3.2-4	2.3.2.c	Health Education and Wellness	Hypertension screening (Blood pressure check)	4125
2.3.2-5	2.3.2.c	Health Education and Wellness	Visual screening	248
2.3.2-6	2.3.2.e	Health Training	CPR Training, Initial classes	20
2.3.2-7	2.3.2.e	Health Training	CPR Training, Refresher classes	80
2.3.2-8	2.3.2.e	Health Training	AED Responder classes	4
2.3.2-9	2.3.2.e	Health Training	AED Training classes	4
2.3.2-10	2.3.2.e	Health Training	AED Refresher classes	10
2.3.2-11	2.3.2.e	Health Training	Bloodborne pathogen (BBP) training sessions	8
2.3.2-12	2.3.2.e	Health Training	Bloodborne pathogen (BBP) update sessions	8
2.3.2-13	2.3.2.e	Health Training	ACLS refresher classes	10
2.3.2-14	2.3.2.e	Health Training	BCLS classes	10
2.3.2-15	2.3.2.e	Health Training	Robert Shaw Respirator Training classes	10

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2.3.3-1	2.3.3	SRB Retrieval Ship Support	Medical Logistics support (reviewing ship’s medical kits and providing medications and medical supplies)	2
2.3.5-1	2.3.5	Medical Review Officer Reviews	Routine random test reviews	500-600
2.3.5-2	2.3.5	Medical Review Officer Reviews	New employment test reviews	100-200
2.3.6-1	2.3.6	Employee Assistance Program	EAP visits - Patient contact (Individual sessions, group sessions, and meeting attendance)	2475
2.4-1	2.4	Emergency Medical Services Medical Support	Simulations, TCDTs, Launches and Landings	28
2.4-2	2.4	Emergency Medical Services Medical Support	First Aid Kits issued/maintained	125
2.4-3	2.4	Emergency Medical Services Medical Support	EMS Responses-KSC	400
2.5-1	2.5	Specialized Physician Support for Launches and Landings	Spacecraft launches	5
2.5-2	2.5	Specialized Physician Support for Launches and Landings	Spacecraft landings	5
2.5-3	2.5	Specialized Physician Support for Launches and Landings	Spacecraft attempted launches	3
2.5-4	2.5	Specialized Physician Support for Launches and Landings	Spacecraft attempted landings	3
2.5-5	2.5	Specialized Physician Support for Launches and Landings	Annual Training Course	1

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2.5-6	2.5	Specialized Physician Support for Launches and Landings	Manned spacecraft contingency simulation exercise support	4
2.6-1	2.6	Aerospace Medicine Services	Document reviews	2
2.6-2	2.6	Aerospace Medicine Services	Manned spacecraft contingency simulation exercise medical packages – as in 2.6-4	4
2.6-3	2.6	Aerospace Medicine Services	Terminal Countdown Demonstration Test (TCDT) medical packages - as in 2.6-4	5
2.6-4	2.6	Aerospace Medicine Services	Launch medical packages - Prepared prior to each spacecraft launch in support of Medical Readiness Meeting and prior to each spacecraft landing and Terminal Count Down Test. Contains plans for confirming all necessary medical preparations for launch and landing, including: -Launch and landing timelines -General mission information -Launch and landing deployment staging maps -General communications listing -Personnel duty, notification tree, and on-call schedules -Triage site maps -Hospital emergency contacts and resources	5
2.6-5	2.6	Aerospace Medicine Services	Landing medical packages – as 2.6-4	5
2.6-6	2.6	Aerospace Medicine Services	Manned spacecraft contingency simulation exercise support	4

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2.6-7	2.6	Aerospace Medicine Services	Launch and landing operations support including launch and landing scrubs and TCDT	21
2.6-8	2.6	Aerospace Medicine Services	Support Training Courses planning and execution	2
2.8-1	2.8	Fitness Facilities	visits	66410
2.9-1	2.9	Musculoskeletal Rehabilitation	visits	2540
2.10-1	2.10	Clinical Laboratories	X-rays	825
2.10-2	2.10	Clinical Laboratories	Clinical lab samples	28050
2.10-3	2.10	Clinical Laboratories	Electrocardiograms	3715
2.10-4	2.10	Clinical Laboratories	Pulmonary function tests	4125
2.10-5	2.10	Clinical Laboratories	Clinical Lab Tests/Samples (2nd year addition)	272/3735
2.11-1	2.11	Biomedical Studies	scheduling, conducting, analysis	4
2.11-2	2.11	Biomedical Studies	medical monitoring sessions requiring physician or nurse	40
2.12-1	2.12	Medical Education Program Participants	Participants (2-3 students per month x 11 months)	27
3.4-1	3.4	Industrial Hygiene	Hazard assessments - Numbers of surveys such as: Emergency response support, ergonomics, confined space hazard evaluations, chemical exposure, heat stress, illumination, oxygen deficiency evaluations, metals exposures, noise.	310

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3.4-2	3.4	Industrial Hygiene	Exposure investigations/complaints: Includes KSC clinic referrals, employee complaints (IAQ, potential exposures)	250
3.4-3	3.4	Industrial Hygiene	Confined space entries - Includes atmospheric testing, completion of entry permits.	1440
3.4-4	3.4	Industrial Hygiene	Inspections - Number of inspection 29 CFR 1960 federal employee sites (defined by organization) requiring walkthrough inspections; includes inspection, associated recordkeeping and tracking.	640
3.4-5	3.4	Industrial Hygiene	Operations support - Number of tasks associated with direct support to scheduled launch vehicle and payload processing operations.	1050
3.4-6	3.4	Industrial Hygiene	Ventilation systems - Annual number of laboratory hood and local exhaust ventilation system surveys	475
3.4-7	3.4	Industrial Hygiene	Design/document review - Number of documents reviewed by EH staff such as flight and ground safety reviews, food plans, engineering designs, and asbestos abatement package reviews. Include review, preparation of comments, and attend review meetings.	500

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3.4-8	3.4	Industrial Hygiene	Asbestos abatement - Support to asbestos abatement operations includes, bulk sampling, site inspections, monitoring.	250
3.4-9	3.4	Industrial Hygiene	Number of MSDS added to the system, including QC of existing sheets. QC includes those tasks in which similar level of effort as adding new sheet and results in changed record in MSDS database registry web.	5500
3.5-1	3.5	Sanitation	Food service inspections, animal care facility inspections, barber shop and fitness centers inspections, sanitary nuisance investigations, chemical toilet inspections, facility sanitation inspections, sanitation complaint investigations, septic tanks.	400
3.6-1	3.6	Health Physics	Number of authorizations managed - Radiation Use Authorizations (RUAs), RUA modifications, and renewals.	190
3.6-2	3.6	Health Physics	Ionizing radiation surveys - Number of survey of ionizing radiation sources.	270
3.6-3	3.6	Health Physics	Nonionizing radiation surveys - Number of survey of nonionizing radiation sources.	120

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3.6-4	3.6	Health Physics	Dosimeter management - Number of dosimeters issued.	1260
3.6-5	3.6	Health Physics	Pocket chambers - Number of pocket ion chambers calibrated	520
3.6-6	3.6	Health Physics	HP Lab - HP laboratory analysis, including quality control samples.	6440
3.7-1	3.7	Laboratory	Asbestos bulk -Bulk samples analyzed using PLM, point counting, including quality control (QC) samples.	525
3.7-2	3.7	Laboratory	Asbestos air - Air samples analyzed using PCM, TEM, including QC samples.	625
3.7-3	3.7	Laboratory	IH Laboratory - Number of industrial hygiene analytical methods (# samples x # analytes/sample).	800
3.7-4	3.7	Laboratory	Environmental Microbiology - Sampling to support research projects and environmental programs in Section 4.0.	2500
3.7-5	3.7	Laboratory	Indoor Air Quality Surveys – Number of field sampling events conducted by Environmental Microbiology personnel.	50
3.7-6	3.7	Laboratory	Indoor Air Quality Samples	1500

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3.7-7	3.7	Laboratory	Spacecraft-specific environmental microbiology testing to support spacecraft operations (samples/Shuttle flight)	90
4.2-1	4.2	Consultative Services	PE Review, Sign and Seal	3
4.4.1-1	4.4.1	Surveillance Services	Number of inspection days per year	360
4.4.2-1	4.4.2	Environmental Support to Construction	Construction Projects - Number of projects to be reviewed and supported by environmental points of contact.	50
4.4.2-2	4.4.2	Environmental Support to Construction	Number of Dig Permits requiring environmental review and comment.	450
4.4.3-1	4.4.3	NEPA Services	Number of Siting Requests requiring environmental review and comment.	250
4.4.3-2	4.4.3	NEPA Services	Number of Environmental Checklists processed	300
4.4.3-3	4.4.3	NEPA Services	Technical Review of NEPA documents prepared by others	3
4.4.6-1	4.4.6	Remediation Program Services	Number of Land Use Control Implementation Plans	35
4.4.7-1	4.4.7	Cultural Resources Services	Number of historic property management studies conducted	6

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4.5.1-1	4.5.1	Hazardous and Controlled Waste Management	Hazardous Waste Determination - Routine PWQ evaluations. Evaluate waste materials to determine regulatory classifications for the purpose of proper management and disposition. Request sampling analysis services and interpret results when necessary to establish proper classification.	1130
4.5.1-2	4.5.1	Hazardous and Controlled Waste Management	Hazardous Waste Determination - Emergency PWQ evaluations. Evaluate waste materials to determine regulatory classifications for the purpose of proper management and disposition. Request sampling analysis services and interpret results when necessary to establish proper classification.	12
4.5.1-3	4.5.1	Hazardous and Controlled Waste Management	Waste Management - Number of routine containers picked up, stored, shipped, treated or transferred.	2910
4.5.1-4	4.5.1	Hazardous and Controlled Waste Management	Waste Management - Number of emergency containers picked up, stored, shipped, treated or transferred.	50
4.5.1-5	4.5.1	Hazardous and Controlled Waste Management	Empty drum pickup/disposal	1615

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4.5.1-6	4.5.1	Hazardous and Controlled Waste Management	Waste Management - Number of manifests of waste treated, shipped, disposed, or otherwise managed during period. This amount includes non-hazardous controlled waste.	110
4.5.2-1	4.5.2	Post-Emergency Clean-up	Spill Clean-ups	100
4.6.1-1	4.6.1	Environmental Compliance Sampling, Analysis, and Monitoring (ECSAM)	Number of annual VEOs required by Title V air permit.	20
4.6.1-2	4.6.1	Environmental Compliance Sampling, Analysis, and Monitoring (ECSAM)	Limited Use Wells - Number of sampling events for wells	30
4.6.1-3	4.6.1	Environmental Compliance Sampling, Analysis, and Monitoring (ECSAM)	Surface water sampling - Samples of surface waters as per the sampling plan.	35
4.6.1-4	4.6.1	Environmental Compliance Sampling, Analysis, and Monitoring (ECSAM)	Ground water sampling - Samples of ground water as per permits	69
4.6.1-5	4.6.1	Environmental Compliance Sampling, Analysis, and Monitoring (ECSAM)	Storm water sampling - Samples of storm waters as per permits	4
4.6.1-6	4.6.1	Environmental Compliance Sampling, Analysis, and Monitoring (ECSAM)	Wastewater sampling – Samples of industrial wastewater as per permits	32
4.6.1-7	4.6.1/ 4.6.4	Environmental Compliance Sampling, Analysis, and Monitoring (ECSAM)/Investigative Environmental Services	Potable water sampling - Number of surveys of potable water per sampling plan and during construction maintenance activities. Includes bottled water complaints potable water system complaint investigations water quality monitoring quality control testing of bottled water etc	175

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4.6.2-1	4.6.2	Waste Characterization Sampling	Number of TCLP analyses	200
4.6.2-2	4.6.2	Waste Characterization Sampling	Number of routine environmental and waste analyses	400
4.6.2-3	4.6.2	Waste Characterization Sampling	Number of emergency environmental and waste analyses	25
4.6.3-1	4.6.3	RCRA Corrective Action Sampling and Support	Solid Waste Management units (SWMU) - Number of SWMU assessment reports	12
4.6.3-2	4.6.3	RCRA Corrective Action Sampling and Support	Number of Confirmatory Sampling Plans	6
4.6.4-1	4.6.4	Investigative Environmental Services	Pollution investigations - Typical response includes sampling of unknown materials and post-spill cleanup.	25
4.6.4-2	4.6.4	Investigative Environmental Services	Number of sampling events for the KSC Visitor's Center Water Feature	2
4.6.4-3	4.6.4	Investigative Environmental Services	Number of sampling events for the KSC Retrieval Ships	120
4.6.4-4	4.6.4	Investigative Environmental Services	Number of sampling events for the KSC Domestic Wastewater effluent	4
5.2-1	5.2	Occupational Health Program Assessment	Domestic Travel	50
5.4-1	5.4	Aerospace Medicine Support	International Travel	2
5.6-1	5.6	Healthcare Promotion and Education	Plan, organize, implement Video Telecommunications System (ViTS) sessions	32

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5.6-2	5.6	Healthcare Promotion and Education	Plan, organize, implement annual NASA Occupational Health Conference	1
6.2.1.1-1	6.2.1.1	Medical Records Maintained	Medical Records Maintained	9625
6.2.1.1-2	6.2.1.1	Health Examinations	Part I - Clinical labs Visits	1130
6.2.1.1-3	6.2.1.1	Health Examinations	Part II - Physician Consultations	800
6.2.1.1-4	6.2.1.1	Health Examinations	Part III - Exercise Stress Test or further testing	170
6.2.6-1	6.2.6	Clinical Laboratories	X-rays	125
6.2.6-2	6.2.6	Clinical Laboratories	Clinical lab samples	4165
6.2.6-3	6.2.6	Clinical Laboratories	Electrocardiograms	550
6.2.6-4	6.2.6	Clinical Laboratories	Pulmonary function tests	615
6.3.2-1	6.3.2	Industrial Hygiene	Hazard assessments - Numbers of surveys such as: Emergency response support, ergonomics, confined space hazard evaluations, chemical exposure, heat stress, illumination, oxygen deficiency evaluations, metals exposures, noise.	70
6.3.2-2	6.3.2	Industrial Hygiene	Exposure investigations/complaints: Includes KSC clinic referrals, employee complaints (IAQ, potential exposures)	30
6.3.2-3	6.3.2	Industrial Hygiene	Confined space entries - Includes atmospheric testing, completion of entry permits.	360

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6.3.2-4	6.3.2	Industrial Hygiene	Inspections - Number of inspection 29 CFR 1960 federal employee sites requiring walkthrough inspections; includes inspection, associated recordkeeping and tracking.	160
6.3.2-5	6.3.2	Industrial Hygiene	Operations support - Number of tasks associated with direct support to scheduled launch vehicle and payload processing operations.	1330
6.3.2-6	6.3.2	Industrial Hygiene	Ventilation systems - Annual number of laboratory hood and local exhaust ventilation system surveys	225
6.3.2-7	6.3.2	Industrial Hygiene	Design/document review - Number of documents reviewed by EH staff such as flight and ground safety reviews, food plans, engineering designs, and asbestos abatement package reviews. Include review, preparation of comments, and attend review meetings.	320
6.3.2-8	6.3.2	Industrial Hygiene	Asbestos abatement - Support to asbestos abatement operations includes, bulk sampling, site inspections, monitoring.	75
6.3.2-9	6.3.2	Industrial Hygiene	IH Laboratory - Number of industrial hygiene analytical methods (# samples x # analytes/sample).	310

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6.3.3-1	6.3.3	Sanitation and Public Health	Food service inspections animal care facility inspections barber shop and fitness centers inspections sanitary nuisance investigations chemical toilet inspections facility sanitation inspections sanitation complaint investigations septic tanks	70
6.3.3-2	3.5	Sanitation	Number of mosquito surveillance sampling surveys (USAF)	72
6.3.4-1	6.3.4	Health Physics	Ionizing radiation surveys - Number of survey of ionizing radiation sources.	180
6.3.4-2	6.3.4	Health Physics	Nonionizing radiation surveys - Number of survey of nonionizing radiation sources.	40
6.3.4-3	6.3.4	Health Physics	Dosimeter management - Number of dosimeters issued.	1260
6.3.4-4	6.3.4	Health Physics	Pocket chambers - Number of pocket ion chambers calibrated	30
6.3.4-5	6.3.4	Health Physics	HP Lab - HP laboratory analysis, including quality control samples.	3460
6.3.4-6	6.3.4	Health Physics	Ionizing Radiation Use Authorizations - Quarterly surveys and maintenance.	16

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6.3.4-7	6.3.4	Health Physics	RF Use Authorizations - Annual surevys and maintenance.	20
6.3.4-8	6.3.4	Health Physics	Laser Use Authorizations - Annual Surveys and maintenance.	7
6.4-1	6.4	USAF Hazardous and Controlled Waste Management	Hazard Determination – Routine PWQ evaluations. Evaluate waste materials to determine regulatory classifications for the purpose of proper management and disposition. Request sampling analysis services and interpret results when necessary to establish proper classification.	500
6.4-2	6.4	USAF Hazardous and Controlled Waste Management	Hazard Determination – Emergency PWQ evaluations. Evaluate waste materials to determine regulatory classifications for the purpose of proper management and disposition. Request sampling analysis services and interpret results when necessary to establish proper classification.	24
6.4-3	6.4	USAF Hazardous and Controlled Waste Management	Waste Management – Routine number of containers picked up, stored, shipped, treated, or transferred.	1100
6.4-4	6.4	USAF Hazardous and Controlled Waste Management	Waste Management – Emergency number of containers picked up, stored, shipped, treated, or transferred.	24

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6.4-5	6.4	USAF Hazardous and Controlled Waste Management	Waste Management - Number of manifests of waste treated, shipped, disposed, or otherwise managed during period. This amount includes non-hazardous controlled waste.	125
6.4-6	6.4	USAF Hazardous and Controlled Waste Management	Waste Management - Number of routine waste sampling events	475
6.4-7	6.4	USAF Hazardous and Controlled Waste Management	Waste Management - Number of emergency waste sampling events	25