

Mattingly Testing Services, Inc

AUDIT REPORT FOR
INDUSTRIAL RADIATION SAFETY PROGRAM

AUDIT NO. MT-IRS-96-2

EXECUTIVE SUMMARY

The Mattingly testing services Industrial Radiation Safety Program implementation was reviewed to satisfy the applicable requirements of 10 CFR part 19, 20, 34, 49 CFR parts 172-177, Mattingly Testing Services, INC. Operating and Emergency Procedure Manual and the NRC License 25-21479-01. Fort Shaw and Billings both facilities were examined during the audit.

The audit was conducted by observation of radiographic field activities, record reviews, procedure reviews and personnel interviews. Exposure Devices storage, inventory, marking, labeling, transportation, handling Were verified. Implementation of radiation protection, postings and monitoring of radiation area and high radiation areas, equipment inspections, exposure set up, surveying techniques and exposure device operation were examined during the observation of radiographic field activities.

Zero finding and two improvement opportunities were identified. Recommendations were provided to improve the effectiveness of exposure records, and to follow consistent survey techniques when the exposure device is moved or transported.

NRC313(8) does not require training to CFR 19, 20 & 34. Training records must include training to the applicable sections of these codes.

NRC Information Notice 96-20 is attached with this report for associated equipment compliance requirements. Associated equipments must be traced by Purchase Order or by side by side comparison check list for compliance to the ANSI N 432.

Based on activities and the objective evidence audited, it was determined that requirements of applicable CFR are adequately addressed by the procedures. Implementation of these procedures in field operation is effective. The findings and improvement opportunities identify need for understanding of the requirements and attention to the details in implementation of the CFR and the Radioactive Material License requirements.

SUMMARY OF AUDIT RESULTS

A. SATISFACTORY AREAS:

1. Posting of Notices: Required notices are posted in sufficient number.
2. Instruction to workers: Workers are informed of storage, transfer and use of the sealed sources through a utilization log posted in both offices. Their responsibility to use radiation protection precautions is clearly understood. Sufficient number of survey meters, alarming rate meters, and direct reading dosimeters are maintained and used. Workers are well informed of their responsibility to report adverse conditions, dose received, equipment malfunction, and their responsibility during emergency condition.
3. Exposure reports are reviewed by the QA manager and undue exposures are discussed with the Radiation Safety Officer / President.
4. New radiographers are trained, tested and certified properly by the RSO and ARSO. New ARSO demonstrated adequate understanding of the Mattingly Testing's radiation Safety program and license requirements.
5. Radiation area and high radiation area posting and control requirements are adequately implemented and radiation area is surveyed and monitored to meet the requirements of good practices. Radioactive material signs are posted at the door of each darkroom where the exposure devices are stored.
6. Each exposure devices, source changers and over pack has required marking and labeling.
7. Exposure devices and associated equipments in use meets the requirements of CFR part 34 and ANSI N432.
8. Exposure devices containing sealed sources were locked and secured to prevent tempering or removal. During use adequate surveillance was maintained by the radiographers. Radiation survey and daily inspection reports are completed properly and signed by the responsible radiographers.

9. Radiographer's Performance was observed for Terry Crase, B. Buckly and D. Hanson. This audit was performed in an unannounced manner for Terry Crase and D. Hanson. The field performance of the assistant radiographer Rodney Smith as an assistant to Brian Buckly was also observed. The performance audit included verification of:

- use of a film badge, a dosimeter, a rate meter, survey meters
- availability of temporary job site documents and equipments
- Transportation Practices
- Exposure Setup, use of radiographic equipments and shots
- Radiation surveys during removal from storage, set up, exposure, survey after each exposure, and a survey upon returning to storage.
- completion of Radiation survey and Daily Inspection Report

10. The QA program and it's implementation for the sealed source transportation is found satisfactory.
11. Results of an annual evaluation of the radiation safety and radiation protection program performed by the Quality Assurance Manager Ms. Susan Mattingly is found to be with sufficient details and effective.

B. IMPROVEMENT OPPORTUNITIES (PRIOR):

Following improvement opportunities identified in the audit report No. MT-IRS-96-1 were reviewed for verification of effectiveness of implementation. Results are as follows:

1. Process Notification and reports to individuals within 30 days from the date of termination. S. Bruno and B. Thomas were terminated October 95. The report from Radiation detection co. were not processed in a timely manner.

Verified that Bart Kurt Left on July 22, 1996, the exposure report was processed on July 25, 1996 and Dean Sering left on June 4, 1996 the exposure report was processed on June 24, 1996. This item is considered closed.

2. Establish monthly/quarterly exposure limits based on the past performance. Perform audits of Radiation Protection Program. Maintain the records of the radiation protection program for three years.

Verified that the Quarterly Exposure Record form limits 250 mR/month exposure. On July 29, the personnel exposures recorded for the month was as follows:

Radiographers:

Darian Henson	121 mR
Brian Buckly	82 mR
Terry Crase	234 mR

Assistant Radiographers:

Rodney Smith	24 mR
Mike Linehardt	25 mR
Buck Thomas	did not review

Exposure received by Terry Crase was discussed. Terry was not aware of 250mR limit and requirements of obtaining RSO approval prior to exceeding the limit. Brian Buckley ARSO, Mark Mattingly RSO and Susan Mattingly were aware of the exposure received by Terry and RSO Mark Mattingly was in process of extending the limit. Until then Terry was working as Assistant to Darian Henson. This item should be monitored in a future audit.

3. Remove or block out "DANGER" on the Radiation Area signs.

Verified signs in the field did not contain "DANGER." This item is considered closed.

4. Perform and document audit of receiving and opening packages to ensure that the written procedures are followed during sealed source receipt and source transfer.

Quarterly audits did not provide the evidence. This item will be verified in a next audit.

5. Confirm that the leak testing procedure includes the wipe of the "S" tube area inside the exposure port. The leak test analysis should include analysis for the Depleted Uranium (DU) to verify that the "S" tube is free of damage. Request INC to include the Model and Sr# of the leak test analysis equipment used and the calibration due date to prove capability and accuracy of the instrument used.

Leak test report does not include evidence of DU verification or leak test analysis equipment Sr# and calibration due date. This item will be verified during a next audit.

6. The utilization log and Radiation Survey and Daily Inspection reports should be reviewed by RSO to verify that the radiation surveys are documented for each entry on the utilization log and that the form is complete and accurate.

Verified RSO reviews. This item is considered closed.

7. Initiate actions such that the audit results are reviewed by the person other than who performed the audit. Corrective actions based on the audit finding are verified by the auditor and accepted by RSO as a management representative.

Verified review by QA Manager and RSO verification of audit reports.

IMPROVEMENT OPPORTUNITIES (CURRENT):

1. Follow consistent survey techniques when the exposure device is moved or transported. Recommend that the reference survey reading be verified and compared with the previous reading to assure that the sealed source is in secured position. A Radiation Survey & Daily inspection report must be completed documenting survey results and inspections of source projector in an appropriate column prior to transportation on public roads.

2. Control badges issued will be placed next to the personnel badges stored when they are not in use. This allows to separate the dose recorded during employment and dose recorded during nonemployment period. Place at least one control badge at billings office and one control badge at Ft. Shaw office.

C AUDIT FINDINGS: (PRIOR)

Corrective actions for following audit findings of the audit report No. MT-IRS-96-1 was verified and the results are as follows:

Finding 1: Contrary to the above requirements the quarterly inspections and maintenance are performed at the start of one quarter and at the end of next quarter which exceeds the requirement of approximately 13 consecutive weeks.

Verified 1/6/96, 3/13/96 and 6/14/96 audits to meet the requirements. This finding is considered closed.

Finding 2: Sealed sources 4400 and 4405 were shipped prior to receiving the positive leak test results from INC.

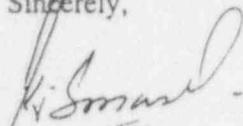
RSO had presented the copy of the log recorded by Mr. Bart to identify that he had called INC and verified the leak test results prior to shipment. Verified that the sources shipped since last audit had current leak test reports. This finding is considered closed.

I have found you and Mrs. Mattingly safety conscious. Mrs. Mattingly as QA Manager is monitoring the documentation and exposure records. I have found improvements in documentation control. Personnel still need to pay attention to details in completing the Radiation Survey and Daily Inspection Reports and Quarterly Exposure Record. Results of successful implementations of above improvement opportunities will be verified during next audit and items will be considered closed.

I apologize for delay in completing the above report. I was in India between August 16 and September 14 due to sickness in family.

Thank you for the cooperations received from you, Mrs. Mattingly and other Matti. gly Testing Inc. Personnel. If there are any questions regarding the above report or the attached checklist please call me.

Sincerely,



Kirit V. Smart
SAI, President.

CC: Linda Howell, NRC.

SMART ASSOCIATE INC., 101 WINGATE DR., JUPITER, FL 33458

INDUSTRIAL RADIATION SAFETY PROGRAM AUDIT CHECKLIST

Company: Mattingly Testing Services Inc., 60 Clark St., Ft. Shaw, MT 59443

Auditor: Kirit V. Smart Date: July 27-29, 1996

Company: Mattingly Testing Services Inc., 1739 N. Frontage Road, Billings, MT 59101

Auditor: Kirit V. Smart Date: July 29-31, 1996

NO	Checklist Item	REF.	Doc/Equip. Verified	Sat.	Unsat	Remarks
1	Posting of Notices in sufficient no.: a. Current CFR 19 b. Current CFR 20 c. License and referenced doc d. Notice of violation e. NRC Form 3	19.11	NRC3, CFR 19,20,&34 applicable sections and license# 25-21479-01 exp. Date 11/30/2000 plus required letters are posted in every truck and in both Offices.	X		
2	Instruction to workers: a. informed of storage, transfer and use b. health protection precautions & ALARA procedures c. responsibility and use of protective inst d. responsibility to report adverse conditions and dose received e. response to emergency condition, equipment malfunction f. worker's right	19.12	a. Verified in/out log in both offices. b. Reviewed quarterly exposure records for: B. Buckley- 82 mR T. Crase- 234 mR D. Henson- 121 mR R. Smith- 24 mR M. Linehardt- 25 mR c. 7.0 of the O & E Manual d. sec 4.0 par 1.3 describes e. 4.0 par 9.0- Radiographer f. NRC 3 posted - reviewed training records for new emp.	X X X X X X		b. Ms. Suzan Mattingly regularly reviews the quarterly exposure records and corrects if needed. High readings for T. Crase & D. Henson were investigated by RSO. Good monitoring!
3	Notification and reports to individuals: a. Annual Exposure Data b. Report contains req. statement c. Within 30 days d. Report to NRC also to individual e. Est. dose to terminating employee	19.13	a. Film badge report b. NRC 5 form has statement c. Reviewed 95 NRC 5 forms d. NRC 5 forms e. Dean left 6/4 report dt. 6/24 Bart left 7/22 report dt. 7/26	X X X X X		Excellent exposure records and reports.

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**AUDIT CHECK LIST FOR
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4	Planned Special Exposure records a. written approval b. inform employer if different c. inform purpose, est. dose & ALARA procedure d. NRC 4 Completed e. PSE dose record W/30 days to NRC & Individual	20.1206	No Special Exposure was performed since last audit.	N/A		
5	Radiation Protection Program: a. documented provisions for Film Badge, DRD, alarming rate meter, area alarm, survey instrument b. audits and other reviews of program and implementation c. documents of (a) permanent records d. documents of (b) 3 yrs.	20.1101	a. Sec. 7.0 of O&E Manual b. Reviews DRD & film badge reports and 2/12/96 audit report from Ms.S. Mattingly. c. NRC-4 forms completed and maintained. d. Reviewed 2/12/96 Audit report.	X X X X		d. Good audit report.

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6	Occupational Dose Limit: TEDE 5 rems/yr ALARA Limit Minor 0.5 rems/yr Embryo or Fetus/9 months General Public 0.001 rem/yr or 2 mRem/hr Demonstrate by measure unrestricted area to have 2 mRem in any hour of operation or 50 mRem/year	20. 1201, 1207, 1208, 20. 1301 20. 1302	TEDE maintained in accordance with Section 12.0 at 5 Rem/Yr. Controlled monthly 250 mR. No minor /embryo dose required to be monitored. This is covered during training. Daily inspection report documents boundry readings to assure general public does not receive undue exposure.	X N/A X		No control badge at billings office to monitor exposure to non radiography personnel.
7	Posting Requirements: CAUTION RADIATION AREA (Radiography In Progress) KEEP OUT CAUTION/DANGER HIGH RADIATION AREA CAUTION/DANGER VERY HIGH RADIATION AREA CAUTION/DANGER RADIO-ACTIVE MATERIAL	20. 1902	Section 5.1 & 5.2 of O & E Manual. Radiation Area sign has Caution sign on boundry tapes. Section 5.2 & High Radiation Area signs on the trucks and during field use verified. Not applicable Verified signs at the door of the storage compartment and on the exposure devices in every truck.	X X X		

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9	Receiving and opening packages:	20. 1906	a. <i>Verified receipt documents for sources 6113, 5776, 5957 & 5695 see attachment 1 for details.</i>	X		
	a. Take possession expeditiously - documents to provide proof.	71.87	b. <i>Written procedure is described in Sec.2.0</i>	X		
	b. Written procedures		c. <i>Ms. Suzan Mattingly annual report covered audit of all sources received and the daily inspection report verification.</i>	X		
	c. Ensure by audit that procedures are followed		d. <i>Verified survey readings on the receipt inspection reports.</i>	X		
	d. Monitor external radiation level not to exceed 200 mR/hr on contact.,	20.	e. <i>Verified refrence readings on the daily inspection reports for sources 6113, 5776, & 5695 to be less than 50 mR/hr.</i>	X		
	e. Ir device less than 4 in. from source must be 50 mR/hr or less at 6 in., and 10 mR/hr or less at 1 yard/meter.	1906 71.87	f. <i>Receiving report verified for satisfactory package integrity.</i>	X		
	f. Examine for evidence of degradation of package integrity, and document this visual examination.		g. <i>None required.</i>	-		
	g. If suspected monitor for level of nonfixed contamination by wiping 300 sqare. cm.		h. <i>N/A</i>	-		
	h. Contamination should not exceed 22 dpm/cm.sqare.		i. <i>Verified refrence readings On Daily Inspection Report.</i>	X		
	i. Perform refrence survey and document result.					

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8	Marking and Labeling Container:	CFR 172-310 172.	<i>Verified Markings and Labels on the exposure devices IR 100 SR#4135, 4136, 4486 & 7286.</i>	X		
	a. Marking shall be durable, clear, visible as follows: Caution /Danger Radioactive Material, Special form NOS, Class 7, Device Model & Sr.No., Radiation Symbol, TypeB(U), CFC No. USA XXXX.	432, 436, 438, 440, 450	<i>Verified markings and labels on Gamma century cameras Sr# 2861, 2858 and 2842. Cameras are identified with Empty Sticker.</i>	X		
	b. Source label as follows "name of mfg., type of source, model and sr. no. of source, assay date, and curie content. or Empty Label		<i>Verified RQ stickies on the IR 100 cameras.</i>	X		
	c. RQ label for Ir and Co 10 Ci and above, Cs 1 Ci and above.	CFR 173.25(2)&(4)	<i>Verified Yellow II stickers on IR 100 SR# 4135, 4136, 4486 & 7286.</i>	X		
	d. Mark gross weight if more than 110 lbs.		<i>No package is over 110 lb requiring marking of weight.</i>	N/A		
	e. For transportation & shipping the exposure device, storage container & source changers must have Radioactive Warning label		<i>Verified Overpack in rig no. 4 to have required sticker of "Internal Package Comply with Prescribed Specification".</i>	X		
	f. Storage Container for transport and over packs for shipping must have min. following marking/labels: Caution/Danger, Radioactive Material, Special Form NOS, Class 7, RQ sticker, Class A/B, Weight if 110lb and over, Yellow II/III with, TI index, and "INNER PACKAGE COMPLY WITH PRESCRIBED SPECIFICATION"					

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10.	Exposure device and associated equipment must meet ANSI N432.	34.20	<i>Gamma Century Exposure devices discontinued from use. Also the associated cranks were discontinued from use.</i>	X		<i>NRC Information Notice 96-20 is attached with this audit report. Compliance will be verified during next audit.</i>
a.	Exp. device must have a durable label listing: Mfg. name, model no., Sr. no., Chem. Symbol, and mass no., activity and date activity was measured, and Licensee name, add and phone no. documented		<i>a. Verified markings and labels on the exposure devices to meet the specification.</i>	X		
b.	verify that there are no unauthorized modification to the exp. device or associated equipment.		<i>b. None observed.</i>	N/A		
c.	Source Assy. and Control cable coupling can not be disconnected under normal and abnormal conditions. Proof by testing		<i>c. Verified pull test after connection each time.</i>	X		
d.	Source assy. is secured when it is cranked back. to secured position		<i>d. Verified by Posilock cranking technique and survy.</i>	X		
e.	safety plugs/cover installed		<i>e. Verified that during transport the shipping plug installed. Each source tube opening is covered by safety plug.</i>	X		
f.	Guide tube must have passed crushing test		<i>f. All source tubes are bought from the INC.</i>	X		
g.	exp. device, source changer & storage cont. shall be checked daily & maintained quarterly or prior to first use.		<i>g. Radiation Survey and daily inspection reports verified. Last 2 quarters' maintenance records verified for 4136, 4155 & 4286 exposure devices and</i>	X		

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11	- Exposure Device and Source Changer must have Lock to prevent tempering or removal of sealed source.	34.22 34.23 34.41	<i>Ir 100 contains locks.</i>	X		
	- Lock must secure the source assembly each time source is returned to it's shielded position. (Posi-Lock or similar 1-1-96)		<i>Verified positive locking mechanism on 4136, 4155, 4286 and 4486 IR 100 cameras.</i>	X		
	- Exp. device, source changer, storage container when loaded with sealed source must be kept locked except under surveillance of radiographer or assistant radiographer.		<i>Verified by field observations that exposure devices are kept under surveillance or placed back in it's storage location.</i>	X		
	- Locks to be maintained for proper operation during quarterly maintenance.		<i>Verified on quarterly inspection and Maintenance reports since last audit.</i>	X		
	- Locked exp. device, source changer, storage container must be physically secured in storage condition.		<i>Verified that exposure devices in truck has either chain and lock or the storage container which is bolted and locked.</i>	X		

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14	Daily Inspection and Utilization Log contain a. Make, model and Sr. # of device b. Radiographer to whom assigned and date c. Condition of components critical to radiation safety d. Location, no. of exposures, and highest reading at boundary e. Utilization log review to verify accuracy and completeness.	34.27	<i>Radiation Survey & Daily Inspection Report reviewed and Verified to contain a to d.</i> q. <i>Verified for D. Hanson and B. Buckley inspection reports in the field.</i> b. <i>Daily signed by the responsible radiographer.</i> c. <i>Verified that the radiographer has checked on the report.</i> d. <i>Exxon Billing refinery.</i> e. <i>Verified by discussion that the reports are verified by Mrs. Susan Mattingly for survey and dose records.</i>	 X X X X		
15	Periodic Inspection & Maintenance: a. Between 12 to 14 weeks or prior to first use b. Ensure proper functioning of items imp. to safety c. Meets manufacturer's recommendations d. Performed by RSO or trained Radiographer e. Verify req. markings and labels f. Reviewed and approved by RSO.	34.28	a. <i>Verified 3/13/96 and 6/14/96 reports..</i> b. <i>Checklist verified.</i> c. <i>Checklist verified against INC service manual</i> d. <i>Performed by ARSO or RSO</i> e. <i>Verified by checklist.</i> f. <i>RSO's review and signature verified.</i>	 X X X X X X		<i>meets requirements of 13 +/- 1 week.</i>

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16	Permanent Facility: a. Each entrance shall have functional visible and audible alarms b. Visible activated by radiation c. Audible activated when attempt to enter is made while source is exposed d. Must be tested for proper operation daily prior to first use e. Results of test documented g. Instrument is calibrated for alarm setting annually	34.29	None	N/A		
17	Personnel Training: a. Verify all training completed prior to first assignment b. Has been trained in and has received CFR 34, applicable sections of CFR 19 and 20 and O & E procedures License commitments and documents.		a. Verified training completed for Terry A. Crase 6/14 & 15/96. Previous employer certification on file for initial training. b. Each truck and radiographer has copies CFR 19, 20, 34 and O & E procedure manual c. License commitments and document in file with every truck. Personnel are familiar with commitment letters and License documents.	X X X		b NRC313(8) does not require training to CFR 19, 20 & 34. Training records must include training to the applicable sections of these codes.

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17 contd.	c. Has demonstrated capability in inspection, maintenance & use of exposure device, equipment related to safety, personnel monitoring devices & radiation protection instruments	34.31	c. Annual performance monitoring verified for M. Mattingly, B. Buckley, and D. Henson.	X		
	d. Trained in transportation, receiving & shipping procedure		d. HAZMAT training verified: B. Buckley 11/14/95, D. Syring 2/20/95 and M. Mattingly 1/26/96	X		
	e. ALARA policy & procedures for minimizing exposure during normal operation and emergency condition	34.31 43.32	c. ALARA training given by policy statement & quarterly exposure record.	X		
	f. Survey techniques	App. A	f. Part of initial training.	X		
	g. Establishing and monitoring radiation and high radiation boundaries	49.172-H	g. Part of initial training.	X		
	h. Has completed written test and field		h. Written test for B. Buckley 11/13 to 16/95 and D. Syring 9/27 to 29/95	X		
	i. Has completed req. hours of training and experience		i. Verified for Terry Crase, Rodny Smith & M. Linehardt.	X		
	j. Performance monitoring & periodic training is current		j. Verified M. Mattingly 1/9/96 and D. Henson 1/9/96	X		
	h. Has completed written test and field demonstration / practical					
	i. Has completed required hours of training and experience					
	j. Performance monitoring & periodic training is current		k to m. All performance monitoring and internal inspections are performed by ARSO B. Buckley and RSO M. Mattingly. Level III inspections are performed by QA Manager Ms. Mattingly.	X		
	k. Annual performance audit is performed for all activities					
	l. Unannounced Audits.					
	m. Audits in k are performed by qualified person approved by program or license document.					

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NO	Checklist Item	REF.	Doc./Equip. Verified	Sat.	Unsat	Remarks
18	Transportation, Shipping and Receiving QA Program:	CFR 71-H				
	a. Authority, duties, and organizational freedom established for person performing QA functions		a. Ms. Suzanne Mattingly is QA manager and she has total organizational freedom.	X		
	b. QA duties shall be performed by trained person not having direct responsibility		b. Ms. Mattingly performs well as a QA Manager. Though formal training not be verified she has demonstrated good understanding of the requirements.	X		
	c. Verify QA measures for procurement of materials, equipment, and services		c. Verified transportation documents in trucks and shipping and receiving records since last audit.	X		
	d. Instructions, procedures and drawings must include acceptance criteria followed		d. O & E Procedure Manual sec 2.0 and 8.0.	X		
	e. Documents latest copy of all relevant docs available in field		e. Verified copies in trucks to be of current revision.	X		
	f. Required inspections and tests are performed in accordance approved procedures and by trained personnel.		f. Verified use of receiving and shipping inspection report and RSO review.	X		
	g. Handling, storage, transportation and shipping shall be in accordance with written procedure to prevent damage or deterioration		g. Section 2.0 & 8.0 of OTE manual	X		
	h. Procedure includes method of identifying, documenting preventing use of defective or nonconforming / rejected instruments, materials and equipments. with procedure to prevent damage or deterioration.		h. Sec 15 requires that any radiography or support equipment found defective will be reported to RSO who will evaluate and if necessary will report to NRC.	X		h. Verified identification of a DRD and survey meters with hold tag at Ft. Shaw office.

SMART ASSOCIATE INC., 101 WINGATE DR., JUPITER, FL 33458

INDUSTRIAL RADIATION SAFETY PROGRAM AUDIT CHECKLIST

Company: Mattingly Testing Services Inc., 60 Clark St., Ft. Shaw, MT 59443

Auditor: Kirit V. Smart Date: July 27-29, 1996

Company: Mattingly Testing Services Inc. 1739 N. Frontage Road, Billings, MT 59101

Auditor: Kirit V. Smart Date: July 29-31, 1996

NO	Checklist Item	REF.	Doc/Equip. Verified	Sat.	Unsat	Remarks
19	Audits / Internal Inspections:	71. 137				
	a. Comprehensive, planned and periodic		a. 1/6/96, 3/13/96, & 6/14/96 reports verified.	X		
	b. Verify compliance with all aspects		b. Check list completed.	X		
	c. By independent and trained personnel		c. RSO & ARSO performed internal inspections.	X		
	d. Results documented & reviewed by management and follow up actions assigned.		d. Review by QA Manager Ms. S. Mattingly verified.	X		
	f. Covers facility, records, instruments, radioactive mat. storage, transportation & personnel performance at least one each time and everyone once in a year.		f. Covers facility inspections only for documentation at Ft. Shaw office. Each personnel are audited by performance evaluation every three months. Verified documents of performance monitoring since last audit for M. Mattingly, B. Buckley, T. Crase & D. Henson.	X		
	g. Audits shall be performed in an unannounced manner		g. Routine Facility Audits, performance some unannounced.	X		

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Company: Mattingly Testing Services Inc. 1739 N. Frontage Road, Billings, MT 59101

Auditor: Kirit V. Smart Date: July 29-31, 1996

NO	Checklist Item	REF.	Doc./Equip. Verified	Sat.	Unsat	Remarks
20	Reports & Notification:	34.30	<i>None Since Last Audit.</i>	N/A		
	a. Verify that any incident, accident, radiation occurrence, PSE, lost or theft of material, over exposure, equipment malfunction, & leakage was reported since last audit.	49CFR 172-G				
	b. Verify that report contained all necessary details.	172. 604 and				
	c. Verify adequacy of management action.	177. 817				
	d. Verify emergency response form/doc. available in each vehicle transporting exposure device to job sites.					
	e. Verify that emergency contact phone no. is monitored while source is in transport.					

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INDUSTRIAL RADIATION SAFETY PROGRAM AUDIT CHECKLIST

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Company: Mattingly Testing Services Inc., 1739 N. Frontage Road, Billings, MT 59101

Auditor: Kirit V. Smart Date: July 29-31, 1996

NO	Checklist Item	REF.	Doc/Equip. Verified	Sat.	Unsat	Remarks
21	Records:	71. 135				
	a. TLD/Film Badge Report	CFR	a. Radiation Detaction Co.	X		
	b. Current NAVLAP cert. on file	19,20 and	Sunnyville CA.			
	c. NRC-4 completed	34	b. NAVLAP Cert. Dated	X		
	d. Daily Inspection and utilization Log		1/1/96 on file.			
	e. Source Records:		c. Verified reports of Terry A.	X		
	- Receiving		Crase, Brian Buckly			
	- Quarterly Inventory		d. See item 14.			
	- Leak Testing		e. Source records verified for	X		
	- Shipping/Disposal		receipt, quarterly inventory			
	f. Calibration Reports:		& leak test for 6113, 5776,			
	- Survey Meters- Area Monitor		5957, & 5965. Shipping			
	- Dosimeter		records verified for sources			
	- Rate Meter		5450, 5184 & BL2823.			
	g. Personnel Records		f. NDS Products Inc.	X		
	- Safety Training/Cert.		- 5277, 5499-2/27/96	X		
	- HAZMAT training		- 2274, 0339 -3/2/96			
	- Daily Dose records		- 4102, 5962 - 10/22/96			
	- Safety/Noncompliance		- 14034, 14389 - 8/17/96			
	h. Periodic Storage area Survey		g. Verified records for Terry			
	Records		Crase and Brian Buckly.	X		
	i. Equipment Maintenance		h. Performed daily see daily			
	- Exposure Device		survey & inspection report			
	- Source Guide Tubes		i. Maintenance records			
	- J Tubes		verified for exposure	X		
	- Control Cable/Crank		devices, control crank and			
	j. Inspection Records		source and guide tubes. J			
	- Annual Performance		tubes N/A.			
	- Quarterly Internal		j. Verified for B. Buckly and			
	k. License and QA Program		M. Mattingly.			
	- correspondence		K. Cert 9006 for Techop and	X		
	- approval		9157 for INC.0542 -Rev 2.			

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Auditor: Kirit V. Smart Date: July 27-29, 1996

Company: Mattingly Testing Services Inc., 1739 N. Frontage Road, Billings, MT 59101

Auditor: Kirit V. Smart Date: July 29-31, 1996

NO	Checklist Item	REF.	Doc./Equip. Verified	Sat.	Unsat	Remarks
21 Cont'd	L Type B Package: - Current Approval - Drawings - Mfg's Instructions	71.135 CFR 19,20 and 34	Verified INC documents for IR-100.	X		

Attachment 1

Exposure Device #	Received Source #	date Recev.	Shipped Source #/	date Shipped	Receiving Records	Shipping Records /Verificationdate
4136	5776	4-8-96	5184	4-4-95	OK	OK -Note 1
4155	5957	6-5-96	B62823	6-8-96	OK	OK
4286	6113	7-25-96	5450	7-26-96	OK	Note 2
4486	5695	3-12-96	N/A	N/A	OK	Note 3

Note 1- Camera received with replacement source

Note 2- Waiting for confirmation of disposal report

Note 3 - New camera received with source