#### Appendix A Management Plan

1) LLR Construction LLC. is a New Mexico licensed general contractor serving the central and northern communities of New Mexico. We are a qualified team of professionals with a general construction and management team of over 65 years of experience. Our customer-oriented service, along with our skilled professionals, work closely through preconstruction, budgeting, scheduling, and construction services. We are successful in achieving efficient, quality, and cost-effective outcomes with our customers. As a family-owned business, we value honesty in both the professional and personal facets of life. LLR Construction aims to meet all your construction needs, no matter the size. We build to plans and specs and stand by our work. Our goal is to provide the highest quality possible at the best value and we work closely with owners to adjust as their needs change.

Since taking our company full time, we have specialized in hospital and education projects. We have been a CES approved vendor since 2013 and completed over 45 projects for education owners under JOC.

2) We have learned a lot about the JOC system over the last 9 years that we have been participating in them. Our very first project award under a JOC contract was with Gordian. We have been working with the eGordian system from the start and have become very familiar with how to use it. The JOC system can be a very rewarding system where the owner and contractor can work hand in hand to complete projects successfully and everyone is happy. It is extremely important that a clear and detail scope of work is prepared and reviewed by both parties. If the scope of work is not clear at the beginning, it has the potential to create conflict during the project. Preparing a JOC proposal does take more time than a traditional proposal because of its detailed nature and the requirement to identify each item that is needed, which ties back to the scope of work. Time is always of the essence when it comes to construction projects. A successful JOC project requires attentiveness and diligence by both the owner team and the contractor team in order to rapidly respond and closeout Job Orders. Delays in responsiveness by either party has an effect on how rapidly a Job Order can be started.

3) Subcontracting Plan: LLR Construction has been contracting with subcontractors and suppliers for over 10 years and we have a database of over 540 companies that we can select from.

LLR Construction self performs, layout, temporary enclosures, interior demolition, concrete, carpentry, metal building erection, interior painting, door & window installation, toilet accessories & partitions.

We typically subcontract large demolition projects, large concrete projects, masonry, steel erection, insulation, sheetrock, flooring, acoustical ceilings on larger jobs, elevators, MEP trades.

LLR currently has 7 projects with a different subcontractor in most of the projects. We are working at Christus St Vincent Hospital now remodeling in 4 different locations at the same time in 3 different buildings on the campus.

4) Coronado Wrecking, Noel Company, Taurus Construction, NM Concrete, Intercon Company, Precision Masonry, Jaynes Structures cabinet shop, OGB Casework, Harrison Flooring, Rays Flooring, Eagle Rock Acoustical, CH Mechanical, KDC Mechanical, Donner Plumbing, APIC Electrical, Prime Electric, US Electric, Specialty Electric

5) The first goal of the VE process is to maintain the design intent and scope of the project by identifying items that are comparable in quality and function. During the VE process, we will start with the finishes that are selected to see if there is a comparable material that can be substituted with a different supplier at a more affordable cost and achieve the same design intent. Then we will look at the Mechanical and Electrical equipment and have meetings with our selected subcontractors. We will then take any recommendations provided by the subcontractors to the design team for consideration. If neither of these options are able to get the project into budget, we then begin to look at cutting or reducing scope with the design team's guidance.

6) Over the 10 years we have been operating LLR Construction full time, about 50 % of our work has been design build. We have relationships with most of the design professionals in the Albuquerque area and throughout other parts of the state. Depending on the size and complexity of the project we select the design firm that most fits the need with cost and detail as required. We have done two complete design builds for the NM Game & Fish warehouse complex, that had to be designed and built in 6 months. It was 20,000 sqft of covered space with a 10 aces site development. We have done an IT Warehouses/maintenance area, Office spaces, Restroom ADA upgrades for complete buildings for school districts to name a few.

LLR construction projects have been 80% renovations in occupied spaces such as hospitals, and 5 different school districts

#### Appendix B – Contractor's Statement of Qualification

1.	ORGANIZATION
	UNGANIZATION

Ν	ame: <u>LLR CONSTRUCTION, LLC</u>	Address:
Р	rincipal Office: 2015 WYOMING BLVD, SUITE I, ALBUQUERQUE NM 871	12
Ventu [	] Corporation []Partnership []Sole Proprietorship []Joint ire ]Other	
а	. How many years has your organization been in business as a contractor? 16	
b name	. How many years has your organization been in business under its present business ?? <u>16</u>	
C	. Under what other or former names has your organization operated? <u>N/A</u>	
d	. Department of Work Force Solutions Contracting Registration #03009120130927 (A Effective Dates:to	,

- e. <u>Submit FEIN and Dunn & Bradstreet report.</u> 20-8101393 Report Attached
- f. Describe any present or past litigation, bankruptcy or reorganization involving supplier.
- g. Felony Conviction Notice: Indicate if the supplier
  - is a publicly held corporation and this reporting requirement is not applicable;
  - is not owned or operated by anyone who has been convicted of a felony; or
  - is owned or operated by and individual(s) who has been convicted of a felony and provide the names and convictions.
- h. Describe any debarment or suspension actions taken against supplier

#### 2. LICENSING

a. Name of license holder (or qualifying party) exactly as on file with the State of New Mexico Construction Industries Division: Douglas Edward Langley

		b. License Class	ification: <u>GB</u>	License Co	de: <u>98</u>
		c. License Numb	er: <u>371032</u>		
		d. Issue Date:	08/01/2011	Expiration Date:	08/31/2023
	e.		s license <u>free</u> of ever bei nsing agency in any otl		d by the CID or [ ]No (attach
	f.	License Number:      Name of License H     LLR Cons	2 <u>2-00116856</u>	ears on file with jurisdiction	f Santa Fe, NM
		Name of License H	ZBL2019-0214 lolder, exactly as it appe ruction, LLC	Jurisdiction: <u>Berna</u> ars on file with jurisdictic	
			mber 31, 2021	Expiration Date:	December 31, 2022
		License Number: <u>C5-</u>	2022-609		blo of Tesuque
			lolder, exactly as it appe istruction, LLC	ars on file with jurisdictic	onal authorities.
		Issue Date: <u>July</u>	23. 2022	Expiration Date: <u>Ju</u>	ıly 23, 2023
	g.	Resident Preference N	lumber? [x] Yes	xico's Purchasing Depar	tment with a []No
		Name of number holde	r, exactly as it appears	on file with State Purch	asing.
	h.	Is your firm free from for jurisdictions? [x] Yes	rmal debarment from pul	blic works, federal, state [ ] No (attach e	
				`	. ,
3. (		ITY AND CAPABILITY Resources.	IO PERFORM THE W	URK	
	d.	1105001005.	(1) Total number of	of current employees: Project Managers Estimators	2

Superintendents	2	
Foremen	1	
Tradesmen	3	
Administration	2	
Others	1	

(2) Does your firm have the immediate capacity to perform the work required for this project?

[**x**] Yes

[]No

(3) What is the number and location of support centers, if applicable, and location of corporate offices?

(4) What was your annual construction volume over the last three (3) fiscal years?

#### \$3.5MM

- (5) What are your overall public sector sales, excluding Federal Government, for last three (3) years?
   \$250,000
- (6) What is your strategy to increase market share in the public sector?

Obtain more JOC contracts

- (7) What differentiates your company from competitors in the public sector?
- (8) Describe any green or environmental initiatives or policies.
- (9) Provide any necessary detail as it relates to standard ordering methods and payment terms.
- (10) If Contractor requires additional agreements with Participating Public Agencies, provide a copy of the proposed agreement herein.

#### 4. SURETY

 a. Firm's current surety company: <u>RLI Insurance Company</u> Will this surety be used for the construction contract for this project?
 [x] Yes

[] No (attach explanation\*)

	Contact Agent: Kevin Menicucci	Telephone: <u>505-823-9927</u>
	Years utilizing this surety: <u>4</u>	Maximum capacity: <u>\$8,000,000</u>
	Aggregate Total of current surety in force: <u>\$0.00</u>	
b.	Is the surety company to be used on this project license New Mexico? [x] Yes []	ed to do business in the State of No (attach explanation*)
C.	Is your firm free of having any construction contracts tak completion in the past five (5) years? [x] Yes []	ten over by a surety for No (attach explanation*)
d.	Complete Attachment A Provide a letter from your setting forth your company's available bonding ca	

d. Complete Attachment A Provide a letter from your bonding company setting forth your company's available bonding capacity and availability and confirming that, if required, your company could provide labor and material payment bonds and performance bonds for certain projects up to the bonding capacity.

#### 5. SAFETY

- a. Does your firm have a written safety program compliant with current state regulations?
  [X] Yes
  [] No (attach explanation\*)
  (NOTE: Selected contractor will be required to provide a copy of their firm's written safety program at the time of contracting.)
- b. Provide the Recordable Incident Rate for the past calendar year: 0
- c. Is your firm free of committing serious or willful violations of federal or state safety laws as determined by a final non-appealable decision of a court or government agency?
   [x] Yes
   [] No (attach explanation\*)
- Provide your safety record, safety rating, EMR and worker's compensation rate where available.
   See attached

#### 6. INSURANCE & CLAIMS HISTORY

- a. Is your firm free from any court judgments, pending litigation, arbitration and final agency decisions filed within the last five (5) years in a construction related matter in which the contractor, or any officer, is or was party?
   [Y] Yes
   [] No (attach explanation\*)
- b. Has your firm during the past five (5) years been free of a determination by a court of competent jurisdiction that it filed a false claim with any federal, state, or local government entity?
  - [X] Yes

[] No (attach explanation\*)

- c. Does your firm have the ability to provide the required insurance in the limit stated in the project documents?
   [x] Yes
   [] No (attach explanation\*)
- d. **Complete Attachment B** by providing a letter from an insurance carrier stating that the firm is able to obtain insurance in the limits required in the RFP. Provide in separate section

#### 7. QUALITY ASSURANCE

a. Does your firm have a written Quality Assurance Program?
 [x] Yes
 [] No (attach explanation\*)

b. **Complete Attachment C** by providing a copy of the written Quality Assurance Program.

#### 8. PROJECT SCHEDULING

a. Has the firm been involved with a construction project within the past five (5) years, where the schedule was not met?

[] Yes [x] No

If yes, please explain

	•	Project 1 Name:							
		Reason for Delay:							
									_
	-	Project 2 Name:							
		Reason for Delay:							
									_
	-	Project 3 Name:							
		Reason for Delay:							
									_
b.		s the firm been asses e past five (5) years		idated dam	ages due	to schedu	ling for any	project in	
		[]Ye	s	[ <mark>x</mark> ] No					
	lf y	ves, please list proje	ct(s)						
	-	Project 1 Name:							

- Project 2 Name: \_\_\_\_\_\_
  - Project 3 Name:

#### 9. LABOR CODE VIOLATIONS

- a. Has your firm, during the past five (5) years, been free of any determinations by a court or an administrative agency of repeated or willful violations of laws and/or regulations pertaining to the payment of prevailing wages or employment of apprentices of public works projects?

   [x] Yes
   [] No (attach explanation\*)
- b. **Complete Attachment D** by providing requested affidavit of non-violation of labor codes.
- c. Is the firm free of all sub-contractor Fair Practices Act violations for the past five (5) years?
   [x] Yes
   [] No (attach explanation\*)

#### 10. VALUE STATEMENT

UNM places a strong emphasis on diversity, quality management and sustainable efforts and strives to utilize these practices in its everyday activities. **Complete Attachment E** by describing your firm's value system and note how you would demonstrate such practices on this project?

#### 11. CONTRACTOR'S COMMENTS

- a. \*Complete Attachment F if you have selected any answers in the qualification statement that require further explanation. Note the question number and proceed with the explanation. This attachment may also be used if necessary to further clarify any of the answers to the above qualification questions, by noting the question number and posting the clarification.
- b. **Complete Attachment G** if you would like to provide additional information about your firm and/or proposal.

The undersigned certifies that all of the qualification information submitted with this form is true and correct.

Signature of authorized representative	Davie Largh	ly .
	J	

Printed or typed name\_David Langley

Title	Managing	Member - Finance	

Date 11/17/22

Company name LLR Construction, LLC

Address 2015 Wyoming Blvd NE Ste i

City/State/Zip<u>Albuquerque</u>, NM 87112

Telephone <u>505-428-9571</u> Fax \_\_\_\_\_

Email david@llrcon.com

#### **ATTACHMENTS INCLUDED - 12**

Please check all attachments included in the

proposal [ ]ANotarized Declaration of

- Surety
- [] B Proof of Insurance
- [] C Copy of Quality Assurance Program
- [] D Affidavit of Non-Violation of Labor Codes
- [ ] E Copy of Value Statement
- [] F Clarifications, and Explanations
- [] G Additional Information (Optional)

------ END OF PRIMARY CONTRACTOR'S QUALIFICATION STATEMENT -------

\_ \_ \_ \_ \_



Face to Face. Specialty Expertise. No Nonsense.

September 29, 2022

Re: LLR Construction LLC

To Whom It May Concern:

We are very proud to represent the surety needs of LLR Construction LLC. This firm enjoys an outstanding relationship with their surety, RLI Insurance Company. Their current treasury listing capacity is \$124,065,000. In the past, RLI Insurance Company has favorably considered the bond requests in the \$4,000,000 to \$8,000,000 Single job and Aggregate program range with currently 90% available, higher limits are available upon request.

The professionalism displayed by this firm is well known and has become a trademark of their company. LLR Construction LLC has enjoyed an excellent growth pattern in the past 6 years. They have earned an excellent reputation for quality workmanship and timely completion of their projects.

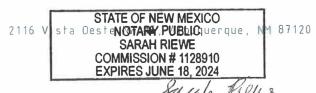
The execution of performance and payment bonds would be based on a favorable review of the contract documents and underwriting requirements at the time of the bond request.

Should you require any additional information regarding LLR Construction LLC, please do not hesitate to contact us directly.

Sincerely,

Kevin A. Menicucci Attorney-in-Fact and Sr. Vice President

Notarized this 29th day of September, 2022





505.923.9921

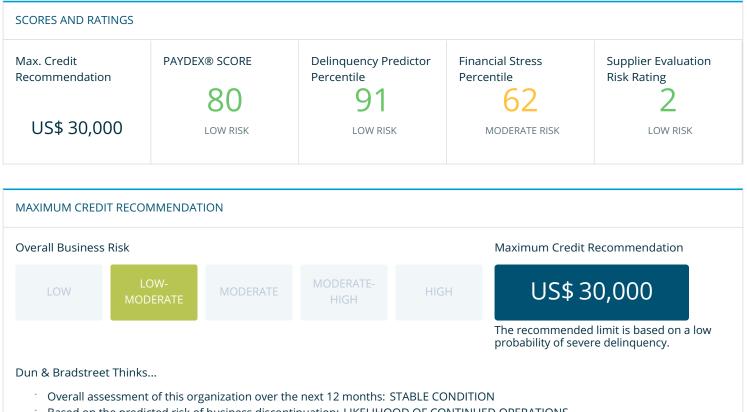
### dun & bradstreet

### **Business Information Report On Demand**

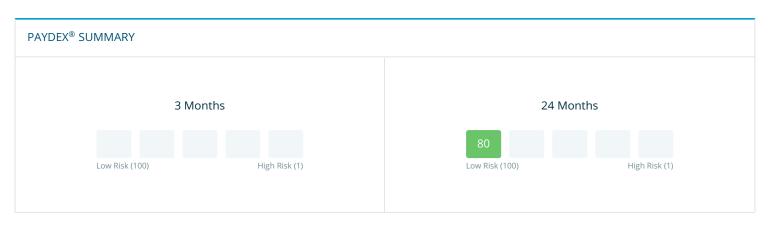
### LLR CONSTRUCTION LLC

D-U-N-S: 10-003-5292 ADDRESS: 2015 Wyoming Boulevard Ne, Albuquerque, NM, 87112, United States Date: 11/17/2022

#### RISK ASSESSMENT



- Based on the predicted risk of business discontinuation: LIKELIHOOD OF CONTINUED OPERATIONS
- Based on the predicted risk of severely delinquent payments: VERY LOW POTENTIAL FOR SEVERELY DELINQUENT PAYMENTS

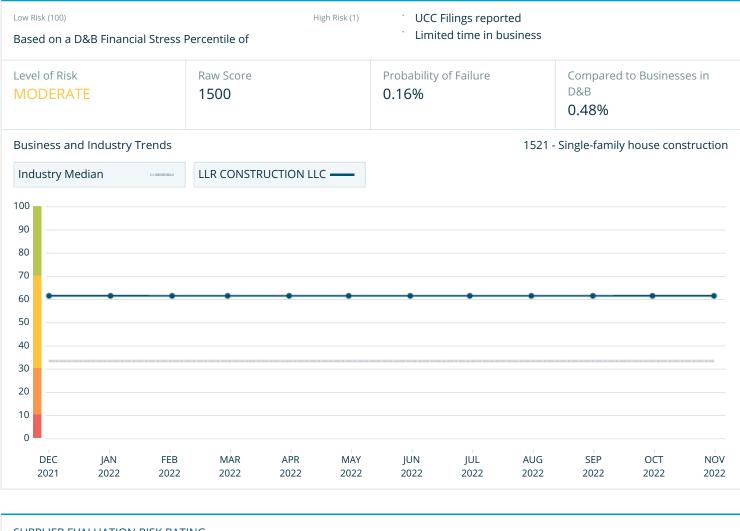


PAYDEX®			Based on 24 months of data
80 Low Risk (100)	High Risk (1)	Risk of Slow Pay LOW	Payment Behavior Pays On Time
Based on a D&B PAYDEX <sup>®</sup> of <			





FINANCIAL STRESS SCORE		
	62	



SUPPLIER EVALUATION RISK RATING	
2 Low Risk (1) Based on a Supplier Evaluation Risk Rating of -	High Risk (9)
Factors Affecting Your Score Limited business activity signals reported in the past 12 months Business belongs to an industry with above average risk of ceasing	g operations or becoming inactive
Business and Industry Trends Supplier Evaluation Score  10 9 8 7 6 5 4	1521 - Single-family house construction
	• • •

2021	JAN 2022	FEB 2022	MAR 2022	APR 2022	MAY 2022	JUN 2022	JUL 2022	AUG 2022	SEP 2022	ОСТ 2022	NOV 2022
D&B RATING											
Current Ratir	Ig										
Special Rat	ing etermined										

TRADE PAYMENTS SUMMARY	Based on 24 months of data	
Overall Payment Behavior O Days Beyond Terms	% of Trade Within Terms	Highest Past Due
Highest Now Owing: US\$ 20,000	Total Trade Experiences: 3 Largest High Credit: US\$ 35,000 Average High Credit: US\$ 12,333	Total Unfavorable Comments : 0 Largest High Credit: US\$ 0 Total Placed in Collections: 0 Largest High Credit: US\$ 0

TRADE PAYMENTS BY CREDIT EXTENDED							
\$ CREDIT EXTENDED	% OF PAYMENTS WITHIN TERMS	# PAYMENT EXPERIENCES	TOTAL & DOLLAR AMOUNT				
OVER 100,000	0%	0	\$0				
50,000 - 100,000	0%	0	\$0				
15,000 - 49,999	100%	1	\$35,000				
5,000 - 14,999	0%	0	\$0				
1,000 - 4,999	100%	2	\$2,000				
UNDER 1,000	0%	0	\$0				

#### TRADE PAYMENTS BY INDUSTRY

Collapse All | Expand All

Industry Category	Number of Payment Experiences	Largest High Credit (US\$)	% Within Terms (Expand to View)
-v99 - Nonclassifiable Establishments	1	35,000	
9999 - Nonclassified	1	35,000	100
-61 - Nondepository Credit Institutions	1	1,000	
6159 - Misc Business Credit	1	1,000	100
-√48 - Communications	1	1,000	
4812 - Radiotelephone Commun	1	1,000	100

#### TRADE LINES

Date of Experience 👻	Payment Status	Selling Terms	High Credit (US\$)	Now Owes (US\$)	Past Due (US\$)	Months Since Last Sale
10/2022	Prompt	-	1,000	1,000	0	1 Month
09/2022	Prompt	-	1,000	750	0	1 Month
12/2021	Prompt	-	35,000	20,000	0	1 Month

#### **EVENTS**

## LEGAL EVENTS

The following Public Filing data is for information purposes only and is not the official record. Certified copies can only be obtained from the official source.

SUITS		JUDGEMENTS		LIENS		UCC FILINGS	
TOTAL	0	TOTAL	0	TOTAL	0	TOTAL	1
LAST FILING DATE	-	LAST FILING DATE	-	LAST FILING DATE	-	LAST FILING DATE	05/25/2021

General: The public record items contained in this report may have been paid, terminated, vacated or released prior to the date this was reported. This information may not be reproduced in whole or in part by any means of reproduction.

UCC Filings: There may be additional UCC Filings in the D&B file on this company which are available by contacting 1-800-234-3867.

Suits, Liens, Judgements: There may be additional suits, liens, or judgements in D&B's file on this company available in the U.S. Public Records Database that are also covered under your contract. If you would like more information on this database, please contact the Customer Resource Center at 1-800-234-3867.

Lien: A lien holder can file the same lien in more than one filing location. The appearance of multiple liens filed by the same lien holder against a debtor may be indicative of such an occurrence.

EVENTS	
UCC Filing - Original	
Filing Date	2021-05-25
Filing Number	20210114611H
Received Date	2021-06-08
Collateral	Assets and proceeds - Equipment and proceeds
Secured Party	WELLS FARGO VENDOR FINANCIAL SERVICES, LLC, BILLINGS, MT
Debtors	LLR CONSTRUCTION, LLC
Filing Office	SECRETARY OF STATE/OPERATIONS BUREAU/UCC DIVISION, SANTA FE, NM

#### COMPANY EVENTS

#### The following information was reported on: 10-01-2022

Business started 2018.

#### 12-12-2020

LLR CONSTRUCTION, LLC was reported by the SBA as a recipient of a loan for \$105,180 from Bank of the West on 04/30/2020 under the Paycheck Protection Program as authorized under the CARES Act of 2020.

D&B currently has no financial information on file for this company.

#### COMPANY PROFILE

COMPANY OVERVIEW		
D-U-N-S	Mailing Address	Annual Sales
10-003-5292	2015 Wyoming Boulevard Ne, Albuquerq NM 87112, US	jue -
Business Form	Telephone	Employees
-	(505) 717-2772	-
Date Incorporated	Fax	Age (Year Started)
-	-	4 years (2018)
State of Incorporation	Website	Named Principal
-	-	
Ownership	Line of Business	SIC
-	Single-family house construction	1521

This business is not currently a part of a family tree.

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# Mod Analysis

#### LLR Construction LLC

Effective Date - 1/1/2023

#### Prepared by Poms & Associates Insurance Brokers LLC

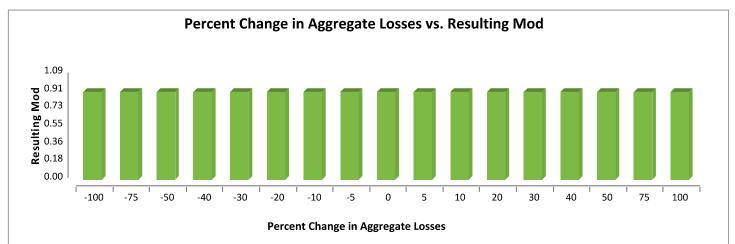
Sandy Lee 5700 Canoga Ave. Suite 400 Woodland Hills, CA 91367 slee@pomsassoc.com



ModMaster® Mod Analysis © 2022 Zywave, Inc. All Rights Reserved.

# Aggregate Loss Sensitivity

This what-if analysis shows how your mod would increase or decrease with aggregate changes in losses. It will allow you to set goals for loss reduction and estimate your savings if the goal is reached.



Percent Change in Aggregate Losses	Resulting Aggregate Losses	Resulting Mod	Mod Change
100% increase	\$0	0.91	0.00
75% increase	\$0	0.91	0.00
50% increase	\$0	0.91	0.00
40% increase	\$0	0.91	0.00
30% increase	\$0	0.91	0.00
20% increase	\$0	0.91	0.00
10% increase	\$0	0.91	0.00
5% increase	\$0	0.91	0.00
Current loss level	\$0	0.91	0.00
5% decrease	\$0	0.91	0.00
10% decrease	\$0	0.91	0.00
20% decrease	\$0	0.91	0.00
30% decrease	\$0	0.91	0.00
40% decrease	\$0	0.91	0.00
50% decrease	\$0	0.91	0.00
75% decrease	\$0	0.91	0.00
100% decrease	\$0	0.91	0.00

From this table we can estimate the cost benefits that could be incrementally achieved through gradual improvements in your losses over time. For example, a 20 percent decrease in losses would decrease the mod by 0.00 points.

#### ModMaster® Mod Analysis brought to you by Poms & Associates Insurance Brokers LLC

Proprietary and Confidential. ModMaster software provides for an ESTIMATE of an experience modification factor. Your official experience modification factor is issued solely by the applicable workers' compensation rating bureau. © 2022 Zywave, Inc. All Rights Reserved.

### Workers' Compensation Experience Rating Worksheet

Effective Date: 1/1/2023

Risk ID: 300264360

								State	e: NM	
1	2	3	4	5	6	7	8	9	10	11
CODE	ELR	D - RATIO	PAYROLL	EXPECTED LOSSES	EXP. PRIM. LOSSES	CLAIMDATA # ID	IJ	OF	ACT. INC. LOSSES	ACT. PRIM. LOSSES
*****New	v Mexico									
Policy P	eriod: 1	/1/2019	to 1/1/2020	Po	licy #: WC10	000060442019A				
5403	2.41	0.24	120,614	2,907	698					
8720	0.54	0.24	198,347	1,071	257					
8810	0.10	0.36	146,584	147	53					
Policy P	eriod Tota	als	465,545	4,124	1,007					
Policy P	eriod: 1	/1/2020	to 1/1/2021	Po	licy #:					
5403	2.41	0.24	107,757	2,597	623					
8720	0.54	0.24	247,579	1,337	321					
8810	0.10	0.36	92,170	92	33					
Policy P	eriod Tota	als	447,506	4,026	977					
Policy P	eriod: 1	/1/2021	to 1/1/2022	Po	licy #:					
5403	2.41	0.24	130,546	3,146	755					
5606	0.39	0.23	6,400	25	6					
6229	1.86	0.29	24,000	446	129					
8720	0.54	0.24	203,356	1,098	264					
8810	0.10	0.36	52,591	53	19					
Policy P	eriod Tota	als	416,893	4,768	1,173					

ModMaster® Mod Analysis brought to you by Poms & Associates Insurance Brokers LLC

#### Mod Analysis for LLR Construction LLC

			(D) - (E)			(H) - (I)			
	0.06		9,761	12,919	3,158	0	29,875	0	0
	"W" VALUE		EXPECTED EXCESS	TOTAL EXPECTED	TOTAL EXP. PRIM.	ACTUAL EXCESS	"B" VALUE	TOTAL ACTUAL	TOTAL ACT. PRIM.
	А	В	C	D	Ε	F	G	Н	
# Limite			Experience	11		12	13	14	
	s Subrogation or other special loss.		Modification Calculation	PRIMARY LOSSES		ILIZING ALUE	RATABLE EXCESS	ADJUSTED TOTALS	15 EXP
	16		ACTUAL	(1)	(C) X (1	(C) X (1 - A) + (G)			MOD
ARAP 1.00 if applicable		ACTUAL	0	39	9,050	0	39,050	(J) / (K)	
		EXPECTED	(E)	(C) X (1	1 - A) + (G)	(A) X (C)		0.91	
	ii applic	cable	EAPECIED	3,158	39	9,050	586	42,794	

\* Rating reflects a decrease of 70 percent medical-only primary and excess loss dollars where ERA is applied, reflected only in totals (F), (H), and (I).

The ARAP surcharge shown is for those states in the rating that have approved the ARAP program. It was calculated based on the general interstate formula and maximum, however, the maximum surcharge may vary by state.

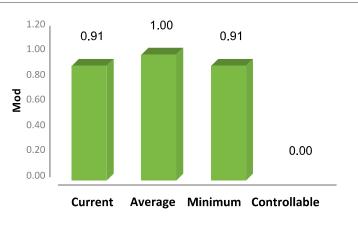
#### ModMaster® Mod Analysis brought to you by Poms & Associates Insurance Brokers LLC

# Mod Snapshot

Effective date: 1/1/2023

#### **The Key Numbers**

Total expected losses	\$12,919
Total expected primary losses	\$3,158
Total expected excess losses	\$9,761
Total unlimited losses	\$0
Total limited/adjusted losses	\$0
Total actual primary losses	\$0
Total actual excess losses	\$0
Computed ballast value	29,875
Computed weighting value	0.06
Modification factor	0.91
ARAP factor	1.00



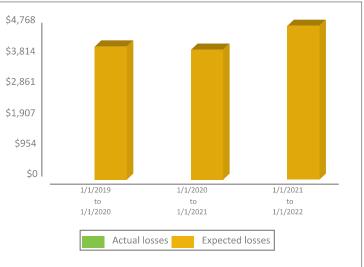
#### Mod Breakdown

#### **Impact of Top Itemized Losses**

State	Injury Date	Incurred Loss	Impact on Mod	Mod w/o Loss

NOTE: There are no itemized losses for this mod.

#### Actual vs. Expected Losses by Policy Period



#### **The Mod Formula**

Actual primary losses	+	Ballast value	+	Weighting value	x	Actual excess losses	+	(1 - Weighting value)	x	Expected excess losses	_	Comment
Expected primary losses	+	Ballast value	+	Weighting value	x	Expected excess losses	+	(1 - Weighting value)	x	Expected excess losses	- =	Current mod
\$0	+	29,875	+	0.06	x	\$0	+	(1 - 0.06)	x	\$9,761		0.01
\$3,158	+	29,875	+	0.06	x	\$9,761	+	(1 - 0.06)	x	\$9,761		0.91

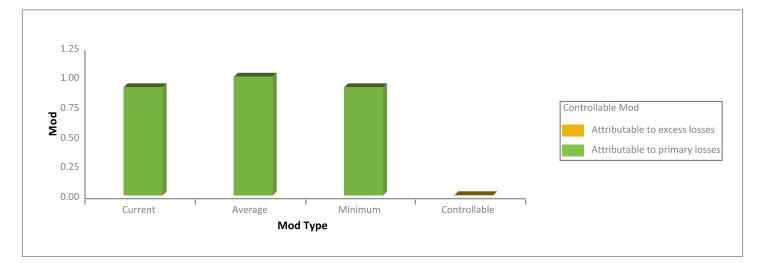
#### ModMaster® Mod Analysis brought to you by Poms & Associates Insurance Brokers LLC

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LLR Construction LLC
Mod Effective Date: 1/1/2023

Page 4

## Your Mod and Potential Premium Savings



Mod Type	Mod Value	Description
Current	0.91	Your actual mod.
Average	1.00	The average mod is always 1.00.
Minimum	0.91	The lowest mod you could achieve if you had zero losses in the experience rating period.
Controllable	0.00	The mod points you could have saved if you had zero losses in the experience rating period.

Compared to your average competitor, your company is at a: 0.09 advantage.

#### More About the Minimum and Controllable Mod

The **minimum mod** is your mod and premium value if your company has zero losses; it is a real and attainable score. This value is unique to your company and may vary each year due to your unique payroll and industry.

The **controllable mod** is the difference between your current mod and the minimum mod. This value is a direct result of the losses your company has incurred during the experience period. By implementing good loss control practices, you can, over time, move your controllable mod to zero - and save the related premium costs.

\* To view the premium calculations and potential premium savings, you must enter an estimated manual premium for this mod.

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#### LLR Statement of Values:

"We provide a safe, high quality project to our customers. Maintaining the highest ethical standards with our clients and construction partners while protecting the general public from all construction activities."

Through the implementation of our Management Plan, Affirmative Action Policy, Safety Program, and Quality Assurance Program, we are able to maintain high levels of diversity, quality management, safety and sustainable efforts that we strive to practice in everyday activities. The above stated programs and plans can be viewed below.

#### LLR Construction, LLC Management Plan

LLR will dedicate a Project Manager to manage all projects for the UNM projects. We will provide superintendents as required for the projects awarded. Once we are notified about a project that will require pricing we will have one of our estimators perform a walk of the proposed project. He will look at access to the project, safety concerns for the general public, and the scope of work required. The estimator will then provide a cost proposal for the work requested.

Once the work is awarded LLR will select the superintendent required to manage the project. Then the Project Manager, Superintendent, and Safety Officer will walk the project and create an action plan and schedule to complete the work.

LLR will provide weekly schedule updates for the Owner to keep them abreast of the progress and completion date.

LLR will conduct weekly Safety Tool box talks with all workers onsite and maintain an accident free work place for everyone onsite.

Every two weeks Safety Counselling will perform a safety audit of our projects to make sure that all safety procedures are being maintained and enforced.

At the end of the project LLR will provide UNM will all closeout documents including as-builts, O&M's and warranties.

When a project is presented to LLR for pricing we will review the scope of work with our staff and subcontractors to look for areas of value engineering and cost savings. If we find areas that we can provide alternative methods or material we will submit in writing our suggestions to the UNM Project Manager for review and comment.

LLR will review every project to look at the most cost effective construction methods and accelerating the schedule which will help with the overall cost of the project. This will help our contractors maintain their estimated profits and in turn we receive their best cost at bid time.

For our LEED implementation we will provide recycle containers for all material that can be recycled. We will ensure that the material is being purchased within the 500 mile radius where possible. Use energy efficient equipment to reduce energy cost. Provide all documentation required.

#### **Affirmative Action Policy**

It is the policy of LLR Construction, LLC to provide equal employment opportunities without regard to race, color, religion, sex, national origin, age, disability, marital status, veteran status, sexual orientation, genetic information or any other protected characteristic under applicable law. This policy relates to all phases of employment, including, but not limited to, recruiting, employment, placement, promotion, transfer, demotion, reduction of workforce and termination, rates of pay or other forms of compensation, selection for training, the use of all facilities, and participation in all company-sponsored employee activities. Provisions in applicable laws providing for bona fide occupational qualifications, business necessity or age limitations will be adhered to by the company where appropriate.

As part of the company's equal employment opportunity policy, LLR Construction, LLC will also take affirmative action as called for by applicable laws and Executive Orders to ensure that minority group individuals, females, disabled veterans, recently separated veterans, other protected veterans, Armed Forces service medal veterans, and qualified disabled persons are introduced into our workforce and considered for promotional opportunities.

Employees and applicants shall not be subjected to harassment, intimidation or any type of retaliation because they have (1) filed a complaint; (2) assisted or participated in an investigation, compliance review, hearing or any other activity related to the administration of any federal, state or local law requiring equal employment opportunity; (3) opposed any act or practice made unlawful by any federal, state or local law requiring equal opportunity; or (4) exercised any other legal right protected by federal, state or local law requiring equal opportunity.

The above-mentioned policies shall be periodically brought to the attention of supervisors and shall be appropriately administered. It is the responsibility of each supervisor of the company to ensure affirmative implementation of these policies to avoid any discrimination in employment. All employees are expected to recognize these policies and cooperate with their implementation. Violation of these policies is a disciplinary offense.

The Affirmative Action Officer has been assigned to direct the establishment and monitor the implementation of personnel procedures to guide our affirmative action program throughout LLR Construction, LLC. A notice explaining the company's policy will remain posted.

Safety Policy:

#### SECTION 1: STATEMENT OF POLICY

**OBJECTIVE:** The development and implementation of a program to protect and minimize personal injuries on the job, the safety of the general public, the environment, and to reduce work related injuries by a measurable amount.

**STATEMENT OF POLICY**: It is the policy of LLR Construction, LLC (aka LLR Construction) to provide a healthy and safe place of employment for all employees, (to include temporary); to attempt to comply with all regulations as they pertain to LLR Construction, LLC which is set forth in Federal, State and Local standards, statutes and OSHA Standard 29 CFR 1910, 29 CFR 1926, 49 CFR Part 325, Parts 350-399, the 10 CFR 851 or subparts thereof refer to Title 10 of the Code of Federal Regulations, Part 851 Worker Safety and Health Program, and the Department of Transportation Motor Vehicle Transportation requirements. Also, to integrate good working safety habits into every aspect of LLR Construction's activity. The "LLR Construction" as used in this Policy refers to LLR Construction, LLC, and its departments. To support this policy, five basic principals are inherent:

- 1. A positive belief that all personal injuries can be prevented.
- 2. An acceptance on the part of management, and supervisors of their responsibilities to prevent personal injuries.
- 3. A conviction that it is reasonably possible to safeguard all operating exposures, which may result in injuries.
- 4. Acceptance of the fact that the prevention of personal injuries is good business, both from the standpoint of efficiency and of economy.
- 5. A recognition that it is necessary to train all employees to work safely and to understand it is to their advantage as well as LLR Construction to work safely; further, that they have a responsibility to do so.

#### **SECTION 2: SAFETY RESPONSIBILITIES & DUTIES**

#### MANAGEMENT

**RESPONSIBILITIES:** Safety begins with management commitment and participation. We will set goals, establish accountability and become involved. A poor safety record is a management problem. Management is required to abide by this policy, as are all employees.

#### DUTIES:

- 1. Communicate safety commitment and policy.
- 2. Attend LLR Construction functions.
- 3. Review accident reports and safety activities.
- 4. Make needed appropriations.
- 5. Lead by example.
- 6. Provide resources, including funding adequate to support this program.

#### SAFETY COORDINATOR

**RESPONSIBILITIES:** Paul Langley will be responsible for the overall safety program. Although is assigned overall responsibility for the administration of this program, the responsibility for a safe workplace rests with every employee, from the President to the newest hire.

#### DUTIES:

- 1. Develop educational materials, develop and implement training programs.
- 2. Arrange for training of employees, supervisors, and the Safety Committee Develop written safety rules.
- 3. Assure compliance with government regulations.
- 4. Arrange for work place inspections.
- 5. Review all accident investigations.
- 6. Analyze reports to identify accident causes.
- 7. Provide First Aid Kits.
- 8. Prepare periodic reports for management.
- 9. Ensure that the resources necessary to implement this program are available using appropriations provided by management.
- 10. Ensure that this safety policy is communicated to all employees of LLR Construction.

#### **SUPERVISORS**

**RESPONSIBILITIES:** Supervisors have a direct responsibility for the safety of the working group. They will help build safety into the work process and be alert for safety and health problems.

DUTIES:

- 1. Attend safety functions.
- 2. Train new employees upon hire.
- 3. Train employees on job assignments and identified hazards.
- 4. Re-train present employees on an on-going basis.
- 5. Stop work if unsafe conditions exist or develop.
- 6. Make informal inspections daily. Document monthly inspection using the checklist provided in the attachment.
- 7. Prepare accident reports.
- 8. Enforce safety rules.
- 9. Correct unsafe acts and conditions.
- 10. Conduct weekly safety meetings/training sessions.
- 11. Investigate all accidents.
- 12. Attend all scheduled safety training sessions.

#### **EMPLOYEES**

**RESPONSIBILITIES:** Workers must learn the hazards of their jobs and abide by safety policy, programs and rules. The program requires the wholehearted support of those it was designed to protect. Employees are expected to participate to the fullest extent in this safety program.

#### DUTIES:

Abide by safety rules.

Report hazardous conditions or concerns.

Do not work in unsafe conditions.

Communicate safety to fellow employees.

Make suggestions to help improve safety.

Ensure personal protective equipment is maintained in good condition. If you need equipment or safety items, contact your field supervisor.

Use and maintain personal protective equipment provided.

Attend weekly safety meetings.

Attend all safety training sessions.

*Every employee can feel confident that identifying unsafe acts or conditions will not result in any type of reprisal to them.* 

**IMPLEMENTATION:** All LLR Construction employees, from top management to the newest hire are to be actively involved in the implementation of this program. Participation of all employees will be monitored by the Safety Coordinator to ensure that all involved are fully participating in the program and each employee is doing his or her part in the implementation of this program.

#### **Quality Assurance/Quality Control Plan**

LLR Quality Assurance/Quality Control (QAQC) program is to assist in compliance of the contract documents and the project's successful completion. LLR will have a Project Manager and Supervisor assigned to each project who are responsible for the implementation of our QAQC plan. The Field Operations Managers who is responsible to oversee all projects will insure that the QAQC is implemented and maintained and walk the project looking for issues that need to be addressed. Projects that are large enough to require a full time QAQC manager will have on provided. Attached is the resume of our Field Operations Manager.

The rolls and responsibilities of the Superintendent and Project manager are as follows:

- Daily audits of the project progress for compliance with contract documents.
- Documentation of items that are not in compliance and how they were addressed.
- Items that cannot be immediately addressed will be tracked in the QAQC tracking log. (See attached sample QAQC tracking log)
- Review of RFI's.
- Review of Special Inspection Reports. Any item in the report that is deficient will be tracked in the QAQC log.
- Review of Architects/ Owner's site observation reports. Any item that is not in compliance and needs to be addressed will be tracked in the QAQC tracking log.
- LLR will respond to Architects/ Owners site observation report to assist with communication on how LLR is addressing issues in the report.
- The QAQC tracking log will be sent over to Owner/Arch as required per project. As items on the log are closed out proper documentation, photos and reference to direction on the resolution to each issue will be attached and distributed.

In addition to the staff listed above LLR will have our Operations Manager perform a bi-weekly site observation walk. The sole purpose of this walk is to ensure QAQC procedures are being followed, issues are being corrected and LLR is catching issues prior to inspections.

Sincerely,

Doug Langley Operations Manger LLR Construction, LLC

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Sincerely,

Doug Langley Operations Manger LLR Construction, LLC



# Honorable Mention Small Architectural Project

Lee Gamelsky Architects P.C. LLR Construction, Contractor

**Covid Testing Building** 

Christopher G. Lujan, AIA Awards Jury Chair

Wir

Stephen Williams, AIA President



**Building Your Quality of Life** 



# FOR EXCELLENT SAFETY RECORD 2021

LLR Construction, LLC Zero Incidence Rate Building - 1 to 49,999 Work Hours



Enes

CHIEF EXECUTIVE OFFICER

THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA

### **Quality Control/Preparing Construction Documentation**

LLR Construction's Project Management Team will ensure that every document, report, drawing or proposal that comes across your desk will be precise, complete, detail oriented, compliant and on time.

When we receive your RFP, be assured that every step is taken to ensure we will provide you with a personalized proposal based on Owner/Architect specifications and plans per bid package received. Our team will review plans and specifications and consult with our broad range of vendors to successfully negotiate the best pricing available.

Once the project is awarded our team will then prepare our project documentation including an accounting package and submittal package (Samples, MSDS, Shop Drawings etc.) based upon the scope of work required.

The review and approval process of construction submittals has many aims. First, it ensures the safety of the building and the people in it- the construction staff and the future dwellers. Second, the process verifies the quality of materials and adherence to the design concept. Finally, it helps keep the project on time and on budget.

The submittal process also is a tool to be sure that the Owner/Architect is receiving the most up to date information and pricing via approvals on not only specified items but, also items that may had to be substituted due to lack or product or long lead time during this post pandemic times.

Should we be required to resubmit items due to addendums and/or unforeseen circumstances, please be assured that our team will handle your request with professionalism and urgency to keep your project on track and on budget.

Our Accounting Team will focus on preparing budgets, financial reports, billing documents, lien releases, and monthly statements. These will be sent over on a monthly basis. Billing will be sent over to you in an AIA format via DocuSign for your approval. Should there be any discrepancies between Owner/Architect etc. With respect to billing, please understand that our Finance Manager will immediately rectify the situation and provide you with revised billing.

## LLR Construction, LLC

Health & Safety, Policies & Plans Last Edited June 2019

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### **BLOODBORNE PATHOGENS**

### UNIVERSAL PRECAUTIONS

To ensure that employees who may be exposed to blood and other infectious materials during administration of first aid or otherwise are afforded the greatest protection available, the following policy has been established:

- Universal precautions shall be observed whenever an employee may be exposed to blood or infectious materials. This means approaching all blood and other potentially infectious materials as if infectious. Particular attention shall be given to contaminated sharp objects that may penetrate the skin including, but not limited to, needles, broken glass, and exposed ends of wires. Work practices and engineering controls shall be followed, including the use of latex gloves, masks and eye protection, resuscitation bags and mouthpieces, gowns, aprons or specialized clothing whenever appropriate.
- LLR Construction will train employees on Bloodborne Pathogens.
- Bloodborne Pathogen Control Plan will be made available to LLR Employees electrically Hand washing facilities/towelettes or antiseptic hand cleanser will be available at work sites.
- Contact management immediately if you are exposed to blood or infectious materials while administering first aid, or otherwise work related.
- Contaminated items shall be discarded into red (biohazard) bags or properly labeled containers and delivered for disposal by licensed disposal contractors.

### HEPATITIS B VACCINATION

Depending on the exposure, Hepatitis B vaccinations may be recommended for employees who have experienced an occupational exposure to blood. Employees must sign a declination form if they choose not to be vaccinated, but they may later opt to receive the vaccine at no cost.

### POST-EXPOSURE EVALUATION AND FOLLOW-UP

An accredited laboratory must conduct any tests or follow-up procedures at no cost to the employee. Follow-up procedures will include a confidential medical evaluation documenting the circumstances of exposure, identifying and testing the source individual, if feasible, testing the exposed employee's blood with the employee's consent, post-exposure prophylaxis counseling, and evaluation of reported illnesses. Health care professionals must be provided with specific information to facilitate the evaluation and their recommendation Hepatitis B vaccination following the exposure. Information such as the employee's ability to receive the Hepatitis B vaccine must be supplied to the employer. All diagnoses will be confidential.

### RECORD KEEPING

Medical records shall be maintained for each employee with occupational exposure to blood and other infectious materials for the duration of employment plus 30 years, in accordance with 29 CFR 1910.1020 and 1910.1030.

All records of employee training on bloodborne pathogens will be kept for a minimum of 3 years.

### ASSURED EQUIPMENT GROUNDING CONDUCTOR PROGRAM

In response to the OSHA- Standard CFR 1926.404 and 1910.309 (c) (3), <u>*LLR</u> <u><i>CONSTRUCTION*</u> has developed an assured grounding program.</u>

### SCOPE

This procedure describes the requirements to assure the installation and maintenance of equipment grounding conductors for temporary wiring on construction sites.

### POLICY

Ground-fault circuit interrupters (GFCI's) are not required for 120-volt singlephase, 15- and

20- ampere receptacle outlets WHERE ALL REQUIREMENTS OF THIS PROCEDURE ARE IMPLEMENTED AT

THE CONSTRUCTION SITE employees shall not use any equipment which has not met the requirements of this procedure.

LLR Construction shall use GFCI in lieu of an assured

grounding program. This program shall have the

following minimum requirements:

• A written copy of this program, which shall be available at the jobsite for inspection and copying by the OSHA Inspector and any affected employee.

### REQUIREMENTS

Equipment grounding conductors shall be installed and maintained in accordance with this procedure.

**Installation** - Equipment grounding conductors shall be installed as follows:

- All 120-volt, single-phase, 15- and 20-ampere receptacles shall be of the grounding type and their contacts shall be grounded by connection to the equipment grounding conductor of the circuit supplying the receptacles in accordance with the applicable requirements of the National Electrical Code.
- All 120-volt cord sets (extension cords) shall have an equipment grounding conductor which shall be connected to the grounding contacts of the connector on each end of the cord.
- The exposed noncurrent-carrying metal parts of 120 volt cord and plug connected tools and equipment that are likely to become energized shall be grounded in accordance with the applicable requirements of the National Electrical Code.

### **Visual Inspection**

• Employees shall be instructed to visually inspect receptacles, flexible

cord sets (extension cords), except those that are fixed and not exposed to damage, and equipment connected by cord and plug before each day's use for external defects such as deformed or missing pins for insulation damage and for indication of possible internal damage. Visual inspections are necessary for receptacles and sets which are fixed and not exposed to damage. Where there is evidence of damage, the item shall be taken out of service and tagged until tests and any required repairs have been made.

### TESTING

*LLR Construction* will test and inspect 120-volt, single-phase, 15- and 20ampere receptacles which are not a part of the permanent wiring of the building or structure, 120-volt flexible cord sets, and 120- volt cord- and plug-connected equipment required to be grounded shall be tested as follows:

**Testing Schedule** - All required tests shall be performed by a competent person:

- Before first use.
- Before equipment is returned to service following any repairs.
- Before equipment is used after any incident which can be reasonably suspected to have caused damage (for example, when a cord set is run over).
- At intervals not to exceed 3 months, except that cord sets and receptacles which are fixed and not exposed to damage shall be tested at intervals not exceeding six months.

**Test Records** - Test verification shall be by means of numeric or color coded marking tape on the receptacle, cord set or equipment to identify that it has passed the test and to indicate the date (month).

Recording of testing will be kept in electronic logs. The record must indicate which equipment passed the test and the date it was tested or the interval for which it was tested.

One copy will be RETAINED at the jobsite electronically with copies transmitted to the office.

WINTER	- White
SPRING	- Green
SUMMER	- Red
FALL	- Orange

### **USE OF ELECTRIC CIRCUIT TESTING DEVICES**

A suggested testing procedure is as follows:

• Receptacle - Use receptacle tester to determine correct connections to

terminals.

- **Cord Sets** First, plug the cord into a properly wired receptacle which has been tested as above. Then plug receptacle tester into the cord connector (female device) or cord set to determine both continuity of grounding conductor and correct connections to terminals.
- **Cord and Plug** Connected Equipment Use continuity tester. Connect or touch one terminal of continuity tester to the metal frame of the equipment or tool and the other terminal to the grounding prong of the attachment cap plug at the end of the cord. An audible (bell) or visual (light) signal of the tester indicates that there is continuity of the grounding conductor. Although not required by OSHA, it is suggested that this test also be made between the metal frame and each of the other two prongs of the attachment cap plug. If there is a signal from this test, it indicates a possible ground fault and the tool should be checked further.

### CONFINED SPACE ENTRY PROGRAM

This section sets forth minimum requirements for equipment, training and procedures for the safe entry, continued work in, and egress from confined spaces in connection with work done for or by LLR Construction. It is the responsibility of LLR Construction to insure that these requirements are met for each entry. Additionally any sub-contractor is required to have at each confined space entry point where contractor personnel are making a confined space entry, copies of the following: the site/space owner's entry permit, a copy of LLR Construction's confined space entry program, a copy of 29 CFR 1910.146 and written documentation of the confined space safety training of those individuals making the confined space entry, serving as the attendant, or as entry supervisor. Sub-contractor employees will meet the same requirements. The entry supervisor will be designated at each site by LLR Construction or as the facility/site representative or contract requires.

This program applies to all confined or enclosed spaces as described below, and shall be reviewed and evaluated and updated annually or sooner as needed, using cancelled permits and all accidents and near misses:

### **Confined Space**

- An area large enough to bodily enter
- An area that has limited means of access and egress
- An area that is not designed for continuous occupancy
- Confined or enclosed spaces include but are not necessarily limited to storage tanks, vessels, manholes, bins, boilers, ventilation or exhaust ducts, sewers, utility vaults, crawl spaces, sub-basements, tunnels, pipe and open top spaces more than four (4) feet in depth, such as pits, tubs, vaults, vessels, and in some instances, excavations.

Non Permit Required Confined Space

- An area large enough and configured in such a way that it can be bodily entered.
- An area with limited means of access and egress.
- An area not designed for continuous occupancy.
- Does not contain, or have the potential to contain, any hazard capable of causing deathor serious harm, atmospheric or otherwise.

• Confined or enclosed spaces include but are not necessarily limited to: storage tanks, vessels, manholes, bins, boilers, ventilation or exhaust ducts, sewers, utility vaults, crawl spaces, sub-basements, tunnels, pipe and open top spaces more than four (4) feet in depth, such as pits, tubs, vaults, vessels and in some instances excavations.

Permit Required Confined Space:

- Means a confined space as defined in A-1 and either contains or has the potential to contain any one or more of the following:
- A hazardous atmosphere.
- Material that has the potential to engulf an entrant.
- Has an internal configuration that could trap or asphyxiate an entrant.
- Contains any other recognized serious safety or health hazard.

Evaluation and Classification of Spaces

Spaces located on the facility or property will be initially be • identified and evaluated, and characterized by the owner for LLR Construction. LLR Construction will have the facility representative or the designee complete the initial confined space evaluation and any other pre-entry evaluations. All known information on any spaces will be given to LLR Construction or its subcontractors well in advance to any confined space entry. If required by the facility owner to use the facility's entry permits then LLR Construction and its' Sub-contractors will be given the permits, and will use the site-specific entry permits. Any entries into Facility-owned confined spaces will be coordinated with the facility representative prior to entry. If the facility/space owner does not have their own permits then LLR Construction and its' sub-contractors will use the permit provided by Company and all entries will be coordinated with LLR Construction.

Surface Precautions

• Signs stating "Danger Confined Space Do Not Enter" and locked access or other means to include fencing to prevent unintended entry into the confined space shall be erected around the entrance to the confined space. In addition, barricading may be required in instances where the confined space is in or adjacent to a road or travel way. If so then a vehicle or barricade shall be positioned to protect personnel from vehicular and pedestrian traffic.

### Equipment

• As a minimum, the LLR Construction shall provide the following equipment, for use by their personnel whenever confined space entry is made. Contractors will be responsible to provide their own equipment.

1. Air monitoring/Sampling Meter -The meter, as a minimum shall meet thefollowing criteria:

- a. Shall be direct reading.
- b. Shall read oxygen as percent by volume.
- c. Shall be intrinsically safe for class 1, Division 1 atmosphere, per the National Electric Code Standards.
- d. Shall read combustibles as percent of the Lower Explosive Limit (LEL). Alarm set at 10% of (LEL)
- e. Shall have both audible and visual alarms.
- f. Shall be capable of continuous, automatic operations.
- g. Shall have intrinsically safe, motorized pump for remote sampling.
- h. Shall be intrinsically rated by a Nationally Recognized Testing Laboratory (NRTL).
- i. Shall read toxic substances in units of measure (i.e., ppm, ppb, mg/m) appropriate for the hazards or contaminants involved. The selection of the sensor shall be determined by the toxic substances suspected to be present in the space.
- j. Shall be capable of field calibration.
- k. Shall be used and maintained by trained personnel in accordance with the manufacturers requirements.
- 1. Shall have written documented field calibration prior to each entry.
- m. Shall have factory calibration records for this equipment readily available.
- n. Shall be RFI hardened.
- o. Should be easy to maintain and calibrate.
- Fall Arrest and Retrieval Equipment shall be used when making vertical entries 5 feet or deeper and any time when doing hot work, i.e. welding, soldering, or torching. The equipment as a minimum shall meet the following criteria:
  - a. Shall have a full body harness with retrieval line and attachment point, back centered, near shoulder-head level,
  - b. Shall have a mechanical retrieval system that shall be

"man rated", designed for human lifting and lowering. This system shall not be vehicle mounted, shall be capable of handling a minimum 300 pound working load and shall have a "dead man" or "fall arrest" brake to prevent uncontrolled slippage while lowering- raising personnel.

- c. Shall have a mechanical retrieval system that is attached to a fixed anchor point able to resist 5000 lbs of force, (generally a tripod) outside of the confined space.
- d. Retrieval tripods and winches or rope pulley systems should be NRTLapproved.
- e. Wristlets may be used in vertical entries.
- f. Shall be used by trained personnel in accordance with manufacturer's guidance.
- Ventilation Equipment the equipment as a minimum shall meet the followingcriteria:
  - a. Shall be electric motor driven and the motor shall be explosion proof.
  - b. Shall be capable of delivering a minimum of four complete total volumes of air changes per hour.
  - c. Shall be heavy duty, industrial grade design of centrifugal (squirrel cage), axial, or a venture type. Note: venture type ventilators run by compressed air shall not introduce contaminants into the ventilation equipment.
  - d. Shall not create a noise level greater than 85 dBA per the noise standard of this Plan inside the confined space.
  - e. Supply ventilation and exhaust ventilation may be needed depending on the nature of the atmospheric hazard. Supply ventilation will supply breathing air free of contaminates, and exhaust ventilation will be sufficient to remove the contamination.
  - f. Shall have sufficient ducting to allow lowering of the ducting to at least the bottom of the space while still allowing topside/outside positioning of theblower intake at least five (5) feet from the surface entrance.
  - g. Shall be used and maintained by trained personnel in accordance with the manufacturer's guidelines.
- 4. Red tape and signs for making a barricade around the confined space entry point.
- 5. The following will be used for entry team communications, this will either be verbal, or powered communications as dictated by the space hazards.
- 6. A Radio or Phone will be used to contact the appointed rescue

service as needed and operation of the radio or phone will be tested. Failure of communications or unavailability of rescue will be an unacceptable condition for entry. (Rescue service will be whomever the Facility/space owner designates.)

7. If lighting is needed in the confined space then explosion proof lighting, which shall be in good condition and intrinsically safe for Class 1 Division 1 atmospheres, will be used.

### Training

- Company or the space owner shall provide or be provided documented proof of formal confined space training prior to the commencement of confined space work for all Company employees and sub-contractor personnel entering into confined spaces, or serving as a confined space attendant, entry supervisor or as an individual monitoring the atmosphere in the confined space. This training shall include all applicable regulatory requirements including but not necessarily limited to:
  - 1. The hazards associated with confined space entry and work.
  - 2. The hazards associated with hazardous atmospheres either present or potentially present in the confined space or introduced into the confined space during the course of the entry.
  - 3. The hazards associated with engulfment and entrapment.
  - 4. The requirements of 29 CFR 1910.146 (Permit required confined space standard) and any other applicable standards. Also any facility or space owner requirements
  - 5. The operation, field calibration, and use of the air monitoring/samplingequipment used at the job site.
  - 6. The proper Personal Protective Equipment required for the space hazards per the space hazard assessment.
  - 7. Emergency procedures and the operation and use of rescue and retrieval equipment.
  - 8. How to purge, inert, flush, ventilate, and isolate the space and otherwise control any other recognized serious safety or health hazards.
  - 9. The roles and responsibilities of the entry supervisor, attendant and entrant personnel.
- a. Entry supervisor shall be trained and perform the duties listed as well as know the

attendant and entrants duties and responsibilities. This position will be appointed by LLR Construction.

- 1. Know the hazards present including signs, symptoms, behavioral aspects, and consequences of exposure.
- 2. Verify by checking that the permit is correctly filled out, all specifiedprocedures and equipment is in place, all tests carried out prior to endorsing the permit and commencing the entry.
- 3. Sign the permit authorizing entry and cancel the entry permit when the jobis complete, or if a condition not allowed by the permit arises.
- 4. Verify that rescue services and means for summoning them are available prior to entry.
- 5. Ensure unauthorized individuals do not enter or remain in the space.
- 6. Ensure entry conditions are maintained if relieving another entry supervisor.
- b. Attendant shall be trained and perform the duties listed below as well as know the duties of the entrant.
  - 1. Know the hazards present including signs, symptoms, behavioral aspects, and consequences of exposure.
  - 2. One attendant per confined space entrance.
  - 3. All entrants will be informed of atmospheric test per this policy.
  - 4. One attendant can monitor multiple trades as long as they are in the same confined area.
  - 5. Continuously maintain an accurate count and identification of the entrants in the space.
  - 6. Remain outside the confined space at all times during the entry unless relieved by another attendant.
  - 7. Maintain communications with entrants, as required to monitor entrant statusand activities inside and outside the confined space to determine if it is safe for entrants to remain inside the space.
  - 8. Orders an immediate evacuation of the space for the following conditions:
    - a. A prohibited or unsafe condition or behavioral effects of hazard exposure occur.
    - b. A situation outside the space that may endanger the entrantsdevelops.
    - c. If the attendant cannot perform all his duties.

- 9. Summons emergency rescue when rescue is needed.
- 10. Start non-entry rescue.

c. Authorized entrant shall be trained and perform the duties listed:

- 1. Know the hazards present including signs, symptoms, behavioral aspects, and consequences of exposure.
- 2. Know how to use any required equipment and properly use that equipment.
- 3. Maintain communications with attendant as required to enable attendant to monitor status of entrants.
- 4. Alert the attendant if the entrant:
  - a. Recognizes any warning signs or symptoms of exposure to a hazard.
  - b. Detects a prohibited condition.
- 5. Exit the space quickly as possible when:
  - a. An order to evacuate or and alarm is given.
  - b. The entrant detects signs or symptoms of a hazard.
  - c. The entrant detects a prohibited condition.
  - d. Another entrant feels it is necessary to leave the space.

Evaluation of and Preparation for Confined Space Entry:

E1. Company will evaluate all spaces for hazards prior to entry to confirm acceptable entry conditions exist.

The following is general guidance concerning confined space entry. Contractors shall check with the proper site representative concerning any specific requirements or unusual hazards in the confined spaces they will be entering before any entry is made. See attached confined space information request letter. All entries into facility spaces will coordinate with the site representative. If the confined space has not been initially evaluated, and characterized for any hazards by the facility or space owner then no entry will be made until this has been done and the results given to Company.

The following list identifies some confined spaces that generally require additional pre- operational review before the confined space entry permit is signed. Other known or suspected hazards may also require additional pre- operational review. The facility or space owner will be included and may be required to do any space evaluations prior to any entry.

- 1. Confined space entry into known high hazard spaces previously identified by the facility or space owner.
- 2. Activities such as welding, hot work, high voltage work, or high noise generation, or use of or work near flammable, combustible, or explosive material.
- 3. The use, generation or presence of toxic substances that the contractor is incapable of monitoring for.
- 4. The use of respiratory protection equipment.
- 5. Engulfment hazards or Hazardous energies that require isolation.
- 6. IDLH conditions.

### NOTE: USE ATTACHED COPY OF APPENDIX A OF 1910.146 TO FACILITATE CONFINED SPACE EVALUATION.

E2. Company employees and any sub-contractor employees shall not enter the confined space until the following conditions have been completed in the listed sequence, and the entry permit has been reviewed by the entry team and signed by the entry supervisor and the facility representative if they are not the entry supervisor.

- a. Company employees making the permit required entry would review and utilize the required confined space entry permit and accompanying checklist. This permit is to be posted at the entry site during the entire duration of the entry along with the confined space entry checklist. The finished or canceled permit will then by turned over to the Company to be filed for review and training and a copy will be forwarded to the space owner. Nonpermit required entry would require completion and review of the confined space entry checklist. The checklist will be posted at the entry point and turned in and handled the same as the permits.
- b. Company or the facility/space owner will be responsible for conducting a pre-entry safety briefing with the entry supervisor, attendants, entrants, and others working in the immediate area. The entry supervisor is assigned the task of ensuring that assessing potential hazards within the space, and completing the hazard assessment forms has been done by whoever required to do so, i.e. the facility/space owner's representative. The entry supervisor will ensure that any other required permits and entry permit are completely filled out and authorized. This will be done by, consulting with the space owner; review of previous entries into the space, review of materials stored in the space and atmospheric testing for oxygen, LEL, and any toxic, and review of work procedures to be done in the space.

- c. Company will ensure that hazardous energy sources within the confined space area are controlled using the written procedures. This information will also be posted with the entry permit.
- d. The space will have atmospheric testing done before and during entry. This will be to verify that conditions are acceptable for entry. This testing will be done without entry if possible; if not, entry to test the space will be done with the space being considered an IDLH space until proven otherwise. Testing will be done in accordance with 1910.146, App. B see attached, 1910.146, App. B. The order of testing will be as follows: Oxygen content first. Flammables/ Combustibles/ Explosives next, and then testing for anyToxic substances last. All employees and representatives are entitled to request additional testing at any time.
- The atmosphere in the confined space is found to be safe by testing e. at all levels in the space for oxygen deficiency/enrichment and the presence of flammable, combustible, explosive, or toxic gases or liquids for a minimum of 3 to 5 minutes at intervals of every four feet. The minimum oxygen content is 19.5% (percentage by volume) and the maximum allowable oxygen content is 23.5% (percentage by volume). The maximum allowable flammable explosive reading will be 5% of the LEL even though the alarm is set at 10% of the LEL. If toxic material is suspected and sampled for, the maximum allowable levels will be one-half the current OSHA Permissible Exposure Level (PEL) or action level whichever is lower. If there is no OSHA (PEL) then the MSDS limits or NIOSH recommendations will be used. Testing for carbon monoxide and hydrogen sulfide will always be done. Prior to use in confined spaces the testing equipment shall be field tested in fresh air in accordance with the manufacturer's instructions.
- f. If initial tests indicate an Immediately Dangerous To Life and Health (IDLH) situation, entry procedures will be halted. This situation is unacceptable for entry. Company and the Facility representative will be contacted for what to do for further evaluation of the confined space.
- g. The confined space shall be purged, inerted, flushed, ventilated for a minimum of 6 total volume exchanges, or as specified in the confined space entry permit when purging, inerted, flushed, ventilating is needed or required to control space hazards.

- h. After purging, inerting, flushing, or ventilating the atmosphere in the confined spacewill be retested exactly as described above (step 4), to ensure that conditions are acceptable for entry.
- i. Ensure that the rescue team/service is available to respond if needed. Non-entry rescue will done by the entry team with on call emergency rescue service. The on call service will be given minimum 24 hour advance notice and asked to be part of the preentry briefing. If the conditions listed below are present, then onsite rescue services will be provided and the rescue service team will be part of the confined space entry team. Entrants are required to wear Supplied Air Respirators. An IDLH condition exist or has the potential to exist. Non-entry rescue equipment cannot be effectively used.

### Work in Confined Spaces

- 1. Continuous air monitoring equipment is required in all cases and ventilation is required to be provided for almost all confined spaces. The ventilation to be provided by a power- driven blower, the output of which will be blown into the space so that any accumulating gases will be replaced by fresh air. The blower shall be located such that the exhaust fumes from vehicles or the equipment itself shall not be forced into the confined space. Sufficient ducting will be provided to prevent recalculating or short-circuiting. See previous section C.3.
- 2. Retrieval equipment is required to be provided and used in almost all confined space entry. If vertical entry of 5 feet or greater, all entrants must have retrieval equipment on unless it is more hazardous to do so. See section C.2 This retrieval equipment must meet all applicable fall protection requirements. If retrieval equipment use is more hazardous then alternative rescue procedures must be provided. See section (E) (2) (I)
- 3. While individuals are in the confined space an employee shall be a "designated attendant" at the entrance of the confined space. The duty of this individual is to observe and provide emergency assistance as required to other personnel working in the confined space. The "designated attendant" cannot leave the confined space area and their sole job is as "designated attendant," shall perform the duties as outlined in section D.9b. unless relieved by another

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trained attendant.

- 4. The site Entry Supervisor shall be notified immediately, and personnel shall be prohibited from entry or re-entry into the confined space, when conditions are deemed unsafe for entry and all entrants are ordered out of the space.
- 5. LLR Construction personnel SHALL NOT attempt confined space rescue that requires entry into the confined space to retrieve personnel, unless properly trained and part of the Confined Space Rescue Team. Prior arrangements shall be made with properly trained site-specific rescue personnel, and in the event that a rescue is necessary, they shall be immediately notified. See Section E. (E) (2) (i)

The site's rescue service shall be requested to attend a briefing on the spaces to be entered, and anticipated hazards associated with work to be conducted, prior to entry.

CONFINED SPACE ENTRY CHECKLIST

Checklist must be part of entry perm	completed and posted as it. YES NO
	Is entry necessary?
	Are the instruments used in atmospheric testing properly
calibrated?	
	Was the atmospheric in the confined space tested?
	Was oxygen at least 19.5% - not more than 23.5%?
	If not the same reading as outside the space, why?
	Were toxic, flammable, or oxygen-displacing gases or vapors
present?	If so - list
performed?	Will the atmosphere in the space be monitored while work is
	Continuously?

Periodically? Intervals?

 Has the space been ventilated before entry?
 Will ventilation be continued during work?
 Is the air intake for the ventilation system located in an area that is free of combustible dusts and vapors and toxic substances?
 If atmosphere was found unacceptable and then ventilated, was it re-tested before entry?
 Has pertinent electrical or mechanical equipment, materials that can engulf, or any
other hazardous energies been locked out or made inoperative? Include written
 Lockout/Tagout procedures with this checklist. Is Personal Protective Equipment needed?

If so, list what is required and the type needed:

 Are respirators required? What type?
 Can you get through the opening with a respirator on?
 Have you had respiratory protection training?
 Have you been trained in First Aid / CPR?
 Have you been trained in confined space entry and do you know what hazards to look for?
 Will there be an attendant on the outside, in constant visual or auditory communication with the person/entrant inside? Will the attendant be able to see or hear the entrants inside at all times?
 Has the attendant person been trained in rescue procedures and have the necessary rescue equipment available? Communication procedures and equipment for entry team. List:

Are safety lines required and available?

LIS	Do you know who to notify and how in the event of an emergency? ST:
	Has a confined space entry permit been prepared and reviewed?
	Does the permit have emergency phone numbers listed?
	Will any other permits be required for work to be done in the confined space? If so, list them:
Is any	other equipment needed? If so, list it:

Below are the anticipated space hazards for this entry:

### CONFINED SPACE INFORMATION REQUEST

The following are items of information that needs to be supplied by Company so that safety issues can be addressed.

Confined Space - Per 1910-146 (c) (8) (I) Has Company told the contractor that the workplace contains permit spaces and the entry is allowed only through compliance with a confined space permit program that meets the requirements of 1910.146.

Will Company allow the contractor to use their program or does the contractor use Company's?

Per 1910.146 (c) (8) (ii) Company must inform the contractor of the elements and hazards that have been identified that make the spaces permit required confined spaces.

Per 1910.146 (c) (8) (iii) Company must inform the contractor of any precautions or procedures they have implemented to protect employees working in or near the permit spaces.

1910.146 (c) (8) (iv) Coordinate with Company for any entry operations.

1910.146 (c) (9) How will Company debrief the contractor on the hazards confronted or created while working in the permit required confined space?

Per 1910.146 (d) (i) How will unauthorized entry be prevented? Per 1910.146 (d)

- 1. How to evaluate the spaces for hazards; how have hazards been identified in the past?
- 2. How is the space to be isolated from hazards i.e., what are the written step by step procedures to control space hazards like engulfment and hazardous energies-Light radiation, Steam, Electric, Chemical, Pneumatic, Hydraulic energies to name

A few.

- 3. Has or/is purging, inerting, flushing or ventilating required of the spaces and if so what are the dimensions?
- 4. Has any special communications been required i.e., non-sparking intrinsically safe?
- 5. What personal protective equipment has been required in the

past?

- 6. What type of lighting equipment has been required or used in the past?
  - 7. What special equipment has been needed in the past or is required now i.e., Respirators chemical suits?
  - 8. Who has Company designated to do their confined space rescue and when was the last time the team made an actual or practice entry rescue per 1910.146(k) and if the space owner will provide rescue?
  - 9. Will the contractor have to use their entry permit system or Company's?
  - 10. Who will be the entry supervisor for the permit required confined spaces the contractor or Company?

1910.147 Control of Hazardous Energies (Lockout/Tagout)

Will contractor use their Control of Hazardous Energies program or Company's?

Will the contractor be given a copy of the written step-bystep procedures for energy isolation on Company's property & facilities?

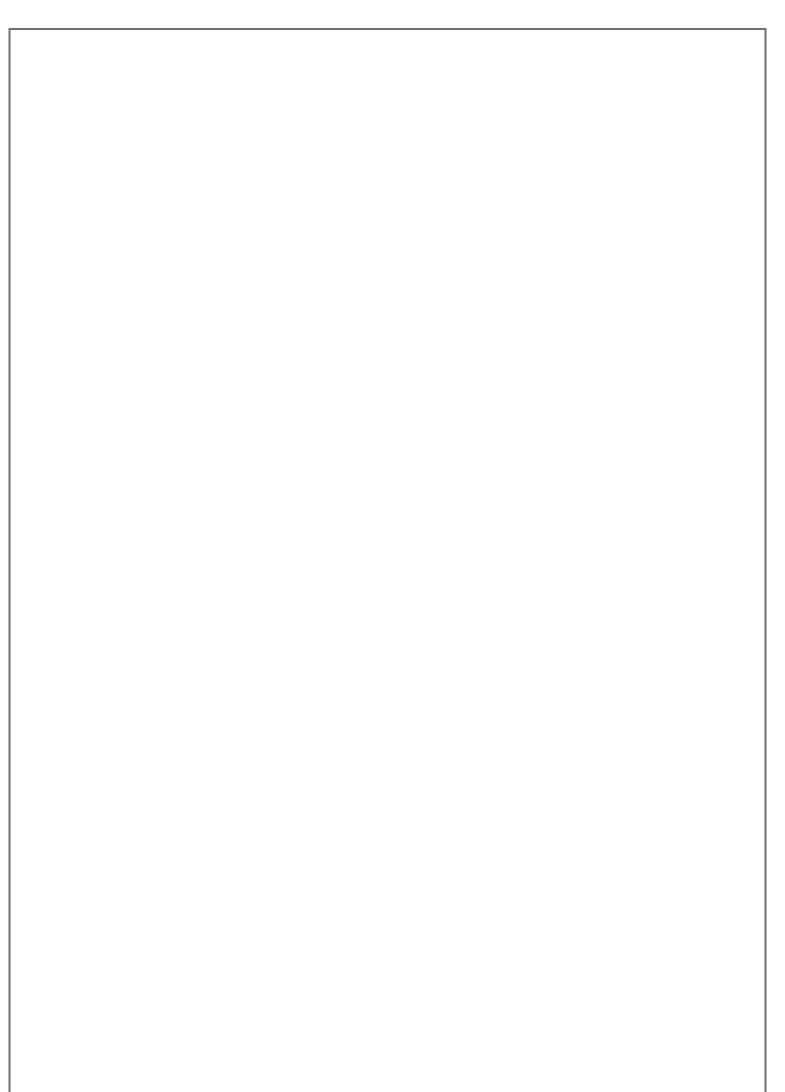
Will Company employees do Lockout/Tagout or the contractor's and if not contractor's employees will they have control over the locks while they are working per 1910.147 (f) (2) & (3)?

Blind Penetrations and Excavation

Will a representative be on site when blind penetrations or excavating is being done for rapid response to emergencies?

Chemical Usage and Storage

Will Company inform the contractor of what chemicals have been used, run through the work site confined spaces or have / are stored in the work area / confined space? Will copies of MSDS or NIOSH chemical guide information sheets be given to the contractor for those chemicals?



### SUBCONTRACTOR PROJECT MANAGEMENT PLAN

### 1. Purpose

The purpose of the Subcontract Project Management Plan is to focus on production and safety plans necessary for successful completion of the project.

First, identify and communicate the efficiency of the workflow process with the crew size necessary to meet the project schedule durations. Second, plan use of equipment, tools, and staging logistics to assist in the production of the work flow. Third, identify safe practices to execute the scope of work and resolve challenges as a result of the work flow and schedule sequencing specific to the project.

This will assist in the operations by having a better understanding of work conducted in a manner that is productive, minimizing impact to those affected, schedule and to meet LLR Construction's expectations in safety and quality.

Instructions are indicated in BLUE for each section.

### 2. Key Personnel, Responsibilities and Contact Information

The following key personnel, responsibilities and contact information are identified.

Name	Title/ Positio n	Phone	Email	Responsibiliti es

Exhibit D: Competent Person Form has been filled out and is attached herein.

Identify all key personnel, responsibilities and contact information for the planned work. Information provided should include but not limited to:

- Persons with specific responsibilities, e.g., Owner / CEO, Project Manager, Superintendent, Foreman, Safety or Safety Representative.
- Competent Persons

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□ Sub-tier contractor company information if applicable

Those persons identified above are required to take all reasonable steps to ensure that they are readily accessible for contact when necessary.

### 3. Scope of Work

The scope of work description should reflect the scope of subcontractor's work as set forth in the subcontract agreement, to the extent any discrepancies exist between the description here and the description in the subcontract agreement, the subcontract agreement description governs.

### 4. Methodology

Insert the sequence and method of work. The details should be written in short and clear statements. Where applicable make cross references to Quality Control (QC) inspection. Include relevant plan document and other associated documents.

The methodology should include but not be limited to:

- □ Summarize description of work methods with sequence of work flow
- □ Man-power, supervision to worker ratio
- Equipment, Tools, any special equipment / precautions needed
- □ Mobilization, Laydown area, Material handling and staging
- Lifting operations; overhead hazards, hoisting equipment (cranes, loaders, forklifts) rigging needed and Critical Picks
- Procurement; Long-lead Item; Material Handling/Storage (long-lead items are critical picks)
- □ Approved Materials and suppliers
- □ Access to work areas; man-lifts, stair towers, stair wells, platform ladders, etc.
  - Safer alternatives to ladders whenever feasible (Ladders Last Requirements)
- $\Box$  Other subcontractors and/or sub-tier relevant to work
- □ Survey and layout requirements
- Environmental requirements / participation in SWPPP
- □ Housekeeping plan to include "Nothing Hits the Floor"
- □ Quality Control (QC); responsibilities to perform inspections of materials placed in walls, ceilings, floors, underground, concrete inbeds, projection, location, size, count, spacing, etc. prior to cover up. Other considerations; pressure test, access/egress, ADA, torque, welding, etc.
  - Local and jurisdiction authority specifications and Inspections requirements
  - Special inspections
  - Preliminary / First Work In Place Inspections

### 5. Projected Work Site Safety

The following Health & Safety Control Measures outline the specific hazards and plans to eliminate or to mitigate risk; Hazard Communication procedures are required in order to facilitate acceptable standards of health and safety associated with scope of work / methodology work activities.

Site Specific Safety Plan (SSSP) First page of LLR Construction's SSSP has been signed, and included herein.

Safety Declaration – The Safety Declaration has been printed, signed, and included herein.

Hazard Communication – the Haz-com plan and site specific inventory and SDS information has been submitted.

The applicable Appendices from LLR Construction's SSSP have been identified and included herein.

Identify foreseen hazard and protective measures which are applicable to your scope and methodology, that may include but not limited to the following:

- □ Site specific plans for Fall Protection, Scaffolds and Excavations, etc. relative to scope
- □ Safety and health provisions / practices for work activities
- □ Construction Confined Spaces (29 CFR 1926 Subpart AA), list all known confined spaces
- □ Signs, signals and barricades for jobsite and public protection
- □ Control of hazardous energy (lockout / tag out)
- $\Box$  Fire protection and prevention
- □ Equipment to be used and any special precautions
- □ Inspection requirements; rigging, safety equipment, tools/equipment, etc.
- PPE requirements, mandatory and risk based

### 6. Daily Project Planning and Risk Management

Before commencement of work each day, Layton will conduct All Hands Production / Coordination Huddle to include physical readiness stretch. Immediately after supervision will conduct a Pre-Task-Plan (PTP) with all members of your crews. In some cases, this may include other Contractors who may be affected by the operation.

Subcontractor field management shall ensure that the PTP is clearly understood by all of their employees. At the end of the PTP, the Subcontractor Supervisor will verify the crew members understand the steps / specifics, tools, equipment, including the specific hazards and control methods to safely perform their task. Only when the Subcontractor Supervisor is satisfied that the PTP is clearly understood by all crew members and other affected Contractors (if any), will works commence. A copy of the PTP will be delivered to LLR Construction's Superintendent for review.

### 7. Appendices

Insert all applicable appendices that may include but not be limited to:

- □ List of Competent Persons
- Certifications, qualifications and training documentation: e.g. Man-lift Operators, Forklift Operators Equipment Operators, Flaggers, Crane Assembly/Disassembly Directors, etc
- □ Crane Pick Plans / Critical Pick Plans.
- □ Certifications of forklift, man lift and list of relevant qualified equipment operators
- Documentation to be available on site include copy of Safety Data Sheet (SDS) and relevant information
- □ Approved Submittals, Shop Drawings, RFIs, plan document necessities include relevant plan documents
- Relevant Specifications / Standards
- $\Box$  Quantity spreadsheets
- $\Box$  QC Plan
- □ Permits, legal relevant documentation, studies, etc.
- □ Plan documents, traffic control plans (on and off site)
- □ Relevant portions of Subcontractor provided materials
- □ PE stamped drawings, shop drawings, pick plans, etc.
- Environmental documentation
- $\Box$  Schedule of major activities
- □ Utility Information / Locates
- $\Box$  Geotechnical info
- $\Box$  Applicable SSSP Exhibits

### LADDER SAFETY PLAN

In reducing the hazards of falls, the safe utilization of ladders is one of the main factors in a successful safety program. Specific requirements for the many types of ladders are found in the Occupational Safety and Health Act, CFR 1910.26 and 1910.29.

General:

- 1. All ladders used by company employees must meet OSHA/ANSI specifications.
- 2. Loading. The minimum design live load shall be a single concentrated load of 200 pounds. The number and position of additional concentrated live load units of 200 pounds each, as determined from anticipated usage of the ladder, shall be considered in the design. The load limits may not be exceeded.
- 3. Slope or pitch. Portable (rung and cleat) non-self-supporting ladders shall be erected at a pitch of 75-1/2 degrees for maximum balance and strength. A simple rule for setting up a ladder at the proper angle is to place the base a distance from the vertical support equal to 1/4 of the working length (the length along the ladder between the foot and the top support) of the ladder.
- 4. Inspection and Tagging. Ladders shall be inspected frequently and those with defects shall be removed from service and tagged or marked "DANGER--DO NOT USE!" and discarded properly.
- 5. Dressing. All wood parts shall be smoothly machined and dressed on all sides so as to be free from sharp edges and splinters.
- 6. Ladders with broken, split or otherwise defective rungs or spreader bars must not be used. Report defective ladders to your supervisor.
- 7. Access to Landings. Ladder rails shall extend at least 36 inches above landings.
- 8. Be sure a ladder is firmly set down before you climb it; if necessary, block it at the bottom and lash it at the top. The foot should set one-fourth of the ladder length away from the wall against that the ladder is leaning.
- 9. Leaning sideways or overreaching, while working from a ladder, may cause the ladder to slip or you may lose your balance.
- 10. When working with A-type ladders, always open or spread fully and make sure the spreaders are in place before you attempt to work from the ladder.
- 11. Tools left on top of stepladders are liable to fall and injure someone. Keep tools in a bucket or box lashed to the ladder or in tool pouches.
- 12. Face the ladder when going up or down and keep one hand free for support.

- 13. Stepladders must not be used for straight ladders; they are not designed for this purpose.
- 14. Portable metal ladders shall not be used for electrical work or where they may contact electrical conductors.
- 15. Ladders may only be used for the purpose for which they were designed. Any other use of them will be considered a safety violation.
- 16. Other precautions:
  - Before a new ladder is placed in service, it should be equipped with rubber shoes and wall grips.
  - When straight or extension ladders are used on hard surfaces, they must be held or firmly lashed.
  - o Forbidden Practices:
    - 1. lashing sections together to lengthen
    - 2. over reaching from ladder
    - 3. Used in horizontal position as platform or scaffold
    - 4. Overloading

Portable Wood/Metal/Fiberglass Ladders:

Ladders provided by the employer shall be in accordance with ANSI Standard. Construction, design and testing requirements are different for each type ladder because of the variety of materials and hardware used; therefore, additional detail specifications for ladders described herein or for other special type ladders not covered, if required, shall be obtained from the reference standard.

### Fixed Ladders:

This section is intended to cover general requirements for fixed ladders of the individual rung and rail type construction. Because of the different design and specification requirements, more detailed information, if needed, should be obtained from ANSI Standard.

- 1. Pitch or Slope Angle. The preferred pitch of fixed ladders shall be considered to come in the range of 75 degrees and 90 degrees with the horizontal. Ladders having a pitch in excess of 90 degrees with the horizontal should not be permitted.
- 2. Construction of Fixed Ladders:
  - Ladders shall be designed to support a live load of at least 200 pounds.
  - Rungs, cleats, and steps shall be free of splinters, sharp edges, burrs, or projections.
  - Side rails that might be used as a climbing aid shall be of such cross section as to afford adequate gripping surface without sharp edges, splinters, or burrs.
  - Combination of Metals. When different types of materials are used in the construction of a ladder, the materials used shall

be so treated as to have no deleterious effect, one upon the other.

- Electrolytic Action. Adequate means shall be taken to protect dissimilar metals from electrolytic action when such metals are joined.
- 3. Maintenance and Preservation:
  - Maintenance. Ladders shall be maintained in safe condition. Ladders shall be inspected regularly.
  - Deterioration of Metal. Metal ladders and appurtenances shall be painted or otherwise treated to resist corrosion and rusting when location demands
  - Deterioration of Wood. Wood ladders, when used under conditions where decaying occurs, shall be treated with nonirritating preservative, and the details shall be such as to prevent or minimize the accumulation of water on wood parts.
- 4. Landing Platforms and Access to Fixed Ladders:
  - Platforms. When ladders are used to ascent to heights exceeding 20 feet, landing platforms shall be provided for each 30 feet of height or fraction therefore, except that, where no cage, well, or ladder safety device is provided, landing platforms shall be provided for each 20 feet of height or fraction thereof.
  - Platform Construction. Landing platforms shall be equipped with standard railings and toe boards so arranged to give safe access to the ladder. Platforms shall not be less than 24 inches in width and 30 inches in length.
  - Access. The step-across distance from the nearest edge of the ladder to the nearest edge of equipment or structure shall not be more than 12 inches, or less than 2 1/5 inches.
- 5. Clearance. The distance from the center line of rungs, cleats, or steps to the nearest permanent object in back of the ladder shall not be less than 7 inches, except when unavoidable obstructions are encountered.

- 6. Guards, Cage, Basket and Ladder Wells. Guards shall be provided on ladders of more than 20 feet to a maximum unbroken length of 30 feet. Construction and installation specifications for cage or basket guards and ladder wells vary because of the nature of access and its location. Specific details relating to dimensions, maximum lengths and special application guards shall be obtained from ANSI A14.3.
- 7. Ladder Safety Devices. Ladder safety devices may be used on tower, water tanks and chimney ladders over 20 feet in unbroken length in lieu of cage protection. No landing platform shall be required in these cases. All ladder safety devices such as those that incorporate life belts, friction brakes and sliding attachments shall meet the design requirements of the ladders that they serve.

Ladders (Window Cleaner's Type):

- 1. When working on a ladder of this type over 18 feet long, a person shall stand at the foot of it, face it and hold it with both hands.
- 2. Ladders shall be provided with means, suitable to the bearing surface, to prevent slipping or tipping.
- 3. Ladder shall be inspected once a month by the person who owns it.
- 4. The use of ladders with hooks attached, to be hung on or over a parapet wall orother projection is prohibited.

Wood Trestle and Extension Trestle Ladders:

The use of trestle ladders or extension sections or base sections of extension trestle ladders longer than 20 feet is prohibited. The total height of base and extension may, however, be more than 20 feet.

### SAFE LADDER PRACTICES

Here are some cardinal safe practices for curtailing ladder accidents:

- 1. Choose the right ladder for the job; the right type and height; one that precludes your climbing above the third rung from the top of an extension or straight ladder or the second tread from the top of a stepladder. Check to make sure that a ladder is in good shape before you use it for any job no faulty or missing parts; no defect whatsoever.
- 2. When positioning a ladder for work, be certain that its footing is secure on a level, firm, and non- skid surface. In case of doubt, block, lash, and/or stabilize the base and get an assistant to hold it. If stability cannot be assured, do not attempt to use the ladder.
- 3. Protect the footing from disturbance when conditions dictate

(barricade the base against traffic, lock or block adjacent doors, station an assistant to ward off contacts, etc.) Place the top of the extension or straight ladder about one-fourth of its length away from the wall or other structure it will lean against.

- 4. Place the top of the extension or straight ladder so that both rails lean squarely against a solid stationary structure; never a weak partition, piled boxes, or other objects that can shift or collapse. The rails should extend about 3 1/2 feet above any top landing. Always face the ladder and hold on with both hands when going up or down. While working, keep your hips between the rails, stay in close to the rungs, and limit your reach to a comfortable arm's length.
- 5. Don't carry tools or materials by hand while climbing up or down. Place needed items on the shelf (not top) of a step ladder before you ascend, or raise and lower them in a container by means of a hand line...or transport them in a protectively rugged and covered pouch supported by a belt or otherwise suspended so as to leave your hands free.

### **Discipline and Standards of Conduct**

As an at-will employer, LLR Construction, LLC may impose discipline whenever it determines it is necessary or appropriate. All disciplinary actions will the responsibility of the Managing Members of LLR Construction. Discipline may take various forms, including verbal counseling, written warnings, suspension, demotion, transfer, reassignment or termination. The discipline imposed will depend on the circumstances of each case; therefore, discipline will not necessarily be imposed in any particular sequence. Moreover, at any time LLR Construction determines it is appropriate, an employee may be discharged immediately.

Every organization must have certain standards of conduct to guide the behavior of employees. Although there is no possible way to identify every rule of conduct, the following is an illustrative list (not intended to be comprehensive or to limit LLR Construction's right to impose discipline for any other conduct it deems inappropriate). Keep in mind that these standards of conduct apply to all employees whenever they are on Company property and/or conducting Company business (on or off Company property). Engaging in any conduct the Company deems inappropriate may result in disciplinary action, up to and including termination.

a. Dishonesty;

b. Falsification of Company records;

c. Unauthorized use or possession of property that belongs to the Company, a coworker, or of the public;

d. Possession or control of illegal drugs, weapons, explosives, or other dangerous or unauthorized materials;

e. Fighting, engaging in threats of violence or violence, use of vulgar or abusive language, horseplay, practical jokes or other disorderly conduct that may endanger others or damageproperty;

f. Insubordination, failure to perform assigned duties or failure to comply with the Company's health, safety or other rules;

g. Unauthorized or careless use of the Company's materials, equipment or property;

h. Unauthorized and/or excessive absenteeism or tardiness;

i. Lack of teamwork, poor communication, unsatisfactory performance,

unprofessional conduct, or conduct improper for the workplace;

j. Sexual or other illegal harassment or discrimination;

k. Unauthorized use or disclosure of the Company's confidential information;

1. Violation of any Company policy.

### Dress Code.

What we wear to work is a reflection of the pride we have in our Company, in what we do, and in ourselves. Although dress code requirements will vary according to job

responsibilities, we ask that your appearance at all times show discretion, good taste, and not present a hazard in the performance of your job.

### Safety

The Company is committed to providing a safe workplace. Accordingly, the Company emphasizes "safety first." It is the employee's responsibility to take steps to promote safety in the workplace and work in a safe manner. By remaining safety conscious, employees can protect themselves and their coworkers. Employees are expected to promptly report all unsafe working conditions, accidents and injuries, regardless of how

minor so that any potential hazards can be corrected. Safety Violations are consider to be any action that violates standards, regulation, policies, or rule set inplace by and enforces by governing jurisdictions or

that puts a person at risk of injury, immediate or long term. Disciplinary actions will be based upon severity of violation and judged on a case by case basis. Disciplinary actions can range from verbal warning to termination.

### Substance and Abuse.

The Company is committed to providing its employees with a safe and productive work environment. In keeping with this commitment, it maintains a strict policy against the use of alcohol and the unlawful use of drugs in the workplace. Consequently, no employee may consume or possess alcohol, or use, possess, sell, purchase or transfer illegal drugs at any time while on the Company's premises or while using the Company vehicles or equipment, or at any location during work time.

No employee may report to work with illegal drugs (or their metabolites) or alcohol in his or her bodily system. The only exception to this rule is that employees may engage in moderate consumption of alcohol that may be served and/or consumed as part of an authorized Company social or business event. "Illegal drug" means any drug that is not legally obtainable or that is legally obtainable but has not been legally obtained. It includes prescription drugs not being used for prescribed purposes or by the person to whom it is prescribed or in prescribed amounts. It also includes any substance a person holds out to another as an illegal drug.

Any violation of this policy will result in disciplinary action, up to and including termination of employment.

Any employee who feels he or she has developed an addiction to, dependence upon, or problem with alcohol or drugs, legal or illegal, is strongly encouraged to seek assistance before a violation of this policy occurs.

Any employee who requests time off to participate in a rehabilitation program will

be reasonably accommodated. However, employees may not avoid disciplinary action, up to and including termination, by entering a rehabilitation program after a violation of this policy is suspected or discovered. When, in the Company's sole and absolute discretion, the Company determines it is appropriate, an employee may be offered the option of participating in and satisfactorily completing a Company-approved drug and/or alcohol rehabilitation program in lieu of termination.

#### Workplace Searches.

To protect Company property and to ensure the safety of all employees, the Company reserves the right to inspect and search any employee's office, desk, drawers, cabinets, files, locker, equipment, including computers, e-mail and voice mail, Company vehicles, and any area on Company premises. In this regard, it should be noted that all offices, desks, file drawers, cabinets, lockers, and other Company equipment and facilities are the property of the Company, and are intended for business use. Employees should have no expectation of privacy with respect to items brought onto Company property and/or stored in Company facilities. Inspection may be conducted at any time, without notice, at the discretion of the Company.

In addition, when the Company deems appropriate, employees may be required to submit to searches of their personal vehicles, parcels, purses, handbags, backpacks, briefcases, lunch boxes or any other possessions or articles brought on to the Company's property.

Persons entering the premises who refuse to cooperate in an inspection conducted pursuant to this policy may not be permitted to enter the premises. All employees must cooperate in an inspection; failure to do so is insubordination and will result in disciplinary action, up to and including termination.

#### ELECTRICAL SAFETY

#### PURPOSE

Electricity is a serious work place hazard, capable of causing both employee injury (shocks, electrocution, fires and explosions) as well as serious property damage. By providing maintenance personnel with proper training in safe electrical work practices, LLR Construction hopes to reduce the risk of such incidents.

#### RESPONSIBILITIES

LLR Construction management is responsible for providing employee safety training, conducting electrical safety inspections, correcting all electrical safety hazards, and ensuring that all new electrical equipment and components comply with codes and regulations.

Employees are responsible for the immediate reporting of electrical safety hazards, for not working on electrical equipment without proper training and authorization, and for inspecting equipment prior to using it.

#### DEFINITIONS

**Qualified worker:** An employee who is trained and authorized to perform work on electrical equipment and components.

**Unqualified worker:** An employee who has not been trained or authorized to perform electrical work.

#### HAZARD CONTROL

The following control methods will be used to prevent occurrence of electricityrelated incidents:

#### **Administrative Controls**

- Only trained, authorized employees may repair or service electrical equipment;
- Contractors must be licensed to perform electrical work;
- Physical barriers must be used to prevent unauthorized persons from entering areas where new installation or repair of electrical components or equipment is being performed;
- Only authorized employees may enter electrical distribution rooms;
- All electrical control devices must be labeled properly;

- Only non-conductive ladders will be permitted.
- All areas of work are to have proper lighting
- Subcontractor Lock out/tagout program must be used before any electrical work begins.
- All equipment, vehicles, and workers must maintain a minimum of 10' from all overhead power line or the lines will be de-energized and grounded.
- When working near overhead lines, unqualified persons must maintain a minimum clearance distance of 10'
- All de-energized electrical parts should be treated as if they were live.
- LLR Construction will NOT allow ANY work on energized electrical circuits.

# Work Practice Controls

- Subcontractors covered under this policy must wear electrically rated safety shoes or boots
- Use only tools that are properly insulated;
- Non-conductive gloves will be available for work on electrical equipment;
- Electrical-rated matting will be placed in front of all electricity-distribution panels.

# ELECTRICAL EQUIPMENT INSPECTIONS

Inspect all electrical equipment for hazards that could cause employee injury or death. Consider the following factors when determining the safety of the equipment:

- Suitability for the intended use;
- Proper insulation;
- Heating effects under conditions of use;
- Arcing effects;
- Classification by type, size, voltage, current capacity and intended use.

# PERSONAL PROTECTIVE EQUIPMENT

LLR Construction will require Subcontractors to provide personal protective equipment for use by their employees working in areas where they could be exposed to electrical hazards.

Subcontractor employees are required to observe the following procedures for PPE use:

- PPE use is mandatory when contact with exposed electrical sources is likely;
- Only use PPE that is designed for the work being performed;
- Inspect and test all PPE prior to use;
- Use a protective outer cover (leather, for example) if the work being performed might damage the PPE's insulation;
- Wear non-conductive headgear if there is danger of electrical burns or shock from

contact with exposed, energized equipment;

• Wear eye and/or face protection any time there is danger of flying objects, flashes or electrical arcs produced by an electrical explosion.

#### **EMPLOYEE TRAINING**

#### **Qualified Employees**

Training for those employees qualified to perform electrical work will consist of:

- Specific equipment procedures;
- The training requirements outlined in OSHA standard 29 CFR 1910.331 to 1910.339.

#### **Unqualified Employees**

Employees not qualified or authorized to perform work on electrical equipment and components will be trained in general electrical safety precautions for the purpose of hazard awareness.

The following electrical safety rules also apply to unqualified employees:

- Do not conduct any electrical repairs;
- Report all electrical hazards to your supervisor;
- Do not operate equipment if you believe there is an electrical hazard;
- Do not allow electrical equipment or components to contact water;
- Remember that even low-voltage electricity can be physically harmful;
- Do not use cords or plugs that are missing the 'ground' prong;
- Do not overload electrical receptacles.

#### **Fall Protection Program**

### I. OBJECTIVE

The objective of the LLR Construction Fall Protection Program is to identify and evaluate fall hazards to which employees will be exposed, and to provide specific training as required by the Occupational Safety and Health Administration (OSHA) Fall Protection Standard, 29 CFR 1926, Subpart M.

# II. POLICY

It is the policy of LLR Construction to protect its employees from occupational injuries by implementing and enforcing safe work practices and appointing a competent person(s) to manage the Fall Protection Program. The LLR Construction Fall Protection Program shall comply with the OSHA requirements. A copy of the OSHA Fall Protection Standard shall be made available to all employees, and may be obtained from LLR Safety Manager.

# III. ASSIGNMENT OF RESPONSIBILITY

#### A. Employer

It is the responsibility of LLR Construction to provide fall protection to affected employees, and to ensure that all employees understand and adhere to the procedures of this plan and follow the instructions of LLR Safety Manager.

#### B. Program Manager

It is the responsibility of LLR Safety Manager as the Fall Protection Program Manager to implement this program by:

- 1. performing routine safety checks of work operations;
- 2. enforcing LLR Construction safety policy and procedures;
- 3. correcting any unsafe practices or conditions immediately;
- 4. training employees and supervisors in recognizing fall hazards and the use of fall protection systems;
- 5. maintaining records of employee training, equipment issue, and fall protection systems used at LLR Construction jobsites; and
- 6. investigating and documenting all incidents that result in employee injury.

#### C. Employees

It is the responsibility of all employees to:

- 1. understand and adhere to the procedures outlined in this Fall Protection Program;
- 2. follow the instructions of LLR Safety Manager;
- 3. bring to management's attention any unsafe or hazardous conditions or practices that may cause injury to either themselves or any other employees; and
- 4. report any incident that causes injury to an employee, regardless of the nature of the injury.

# IV. TRAINING

- A. All employees who may be exposed to fall hazards are required to receive training on how to recognize such hazards, and how to minimize their exposure to them. Employees shall receive training as soon after employment as possible, and before they are required to work in areas where fall hazards exist.
- B. A record of employees who have received training and training dates shall be maintained by LLR Safety Manager. Training of employees by LLR Safety Manager shall include:
  - 1. Nature of the fall hazards employees may be exposed to.
  - 2. Correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems.
  - 3. Use and operation of controlled access zones, guardrails, personal fall arrest systems, safety nets, warning lines, and safety monitoring systems.
  - 4. Role of each employee in the Safety Monitoring System (if one is used).
  - 5. Limitations of the use of mechanical equipment during roofing work on lowslope roofs (if applicable).
  - 6. Correct procedures for equipment and materials handling, and storage and erection of overhead protection.
  - 7. Role of each employee in alternative Fall Protection Plans (if used).
  - 8. Requirements of the OSHA Fall Protection Standard, 29 CFR 1926, Subpart M.
  - 9. LLR Construction requirements for reporting incidents that cause injury to an employee.
- C. Additional training shall be provided on an annual basis, or as needed when changes are made to this Fall Protection Program, an alternative Fall Protection Plan, or the OSHA Fall Protection Standard.

# **V.** CONTROLLED ACCESS ZONES

- A. Masons are the only authorized employees permitted to enter controlled access zones and areas from which guardrails have been removed. All other workers are prohibited from entering controlled access zones.
- B. Controlled access zones shall be defined by control lines consisting of ropes, wires, tapes, or equivalent material, with supporting stanchions, and shall be:
  - 1. Flagged with a high-visibility material at six (6) foot intervals.
  - 2. Rigged and supported so that the line is between 30 and 50 inches (including sag) from the walking/working surface.
  - 3. Strong enough to sustain stress of at least 200 pounds.
  - 4. Extended along the entire length of an unprotected or leading edge.
  - 5. Parallel to the unprotected or leading edge.
  - 6. Connected on each side to a guardrail system or wall.
  - 7. Erected between six (6) feet and 25 feet from an unprotected edge, except in the following cases:
    - a. when working with precast concrete members: between six (6) feet and 60 feet from the leading edge, or half the length of the member being erected, whichever is less; or
    - b. when performing overhand bricking or related work: between ten (10) feet and 15 feet from the working edge.

# VI. EXCAVATIONS

Fall protection will be provided to employees working at the edge of an excavation that is six (6) feet or deeper. Employees in these areas are required to use the fall protection systems as designated in this program.

- A. Excavations that are six (6) feet or deeper shall be protected by guardrail systems, fences, barricades, or covers.
- B. Walkways that allow employees to cross over an excavation that is six (6) feet or deeper shall be equipped with guardrails.

# VII. FALL PROTECTION SYSTEMS

# A. Covers

- 1. All covers shall be secured to prevent accidental displacement.
- 2. Covers shall be color-coded or bear the markings "HOLE" or "COVER".
- 3. Covers located in roadways shall be able to support twice the axle load of the largest vehicle that might cross them.
- 4. Covers shall be able to support twice the weight of employees, equipment, and

materials that might cross them.

B. Guardrail Systems

Guardrail systems shall be erected at unprotected edges, ramps, runways, or holes where it is determined by LLR Safety Manager that erecting such systems will not cause an increased hazard to employees. The following specifications will be followed in the erection of guardrail systems. Toprails shall be:

- 1. at least ¼ inch in diameter (steel or plastic banding is unacceptable);
- 2. flagged every six (6) feet or less with a high visibility material if wire rope is used;
- 3. inspected by LLR Safety Manager as frequently as necessary to ensure strength and stability;
- 4. forty-two (42) inches (plus or minus three (3) inches) above the walking/working level; and
- 5. adjusted to accommodate the height of stilts, if they are in use.

Midrails, screens, mesh, intermediate vertical members, and solid panels shall be erected in accordance with the OSHA Fall Protection Standard.

Gates or removable guardrail sections shall be placed across openings of hoisting areas or holes when they are not in use to prevent access.

- C. Personal Fall Arrest Systems
  - 1. Personal fall arrest systems shall be issued to and used by employees as determined by LLR Safety Manager and may consist of anchorage, connectors, body harness, deceleration device, lifeline, or suitable combinations. Personal fall arrest systems shall:
    - a. limit the maximum arresting force to 1800 pounds;
    - b. be rigged so an employee cannot free fall more than six (6) feet or contact any lower level;
    - c. bring an employee to a complete stop and limit the maximum deceleration distance traveled to three and a half (3½) feet;
    - d. be strong enough to withstand twice the potential impact energy of an employee free falling six (6) feet (or the free fall distance permitted by the system, whichever is less);
    - e. be inspected prior to each use for damage and deterioration; and
    - f. be removed from service if any damaged components are detected.

- 2. All components of a fall arrest system shall meet the specifications of the OSHA Fall Protection Standard, and shall be used in accordance with the manufacturer's instructions.
  - a. The use of non-locking snaphooks is prohibited.
  - b. Dee-rings and locking snaphooks shall:
    - i. have a minimum tensile strength of 5000 pounds; and
    - ii. be proof-tested to a minimum tensile load of 3600 pounds without cracking, breaking, or suffering permanent deformation.
  - c. Lifelines shall be:
    - *i.* designed, installed, and used under the supervision of *LLR Safety Manager;*
    - ii. protected against cuts and abrasions; and
    - iii. equipped with horizontal lifeline connection devices capable of locking in both directions on the lifeline when used on suspended scaffolds or similar work platforms that have horizontal lifelines that may become vertical lifelines.
  - d. Self-retracting lifelines and lanyards must have ropes and straps (webbing) made of synthetic fibers, and shall:
    - i. sustain a minimum tensile load of 3600 pounds if they automatically limit free fall distance to two (2) feet; or
    - ii. sustain a minimum tensile load of 5000 pounds (includes ripstitch, tearing, and deforming lanyards).
  - e. Anchorages must support at least 5000 pounds per person attached and shall be:
    - *i.* designed, installed, and used under the supervision of *LLR Safety Manager;*
    - ii. capable of supporting twice the weight expected to be imposed on it; and
    - iii. independent of any anchorage used to support or suspend platforms.

#### D. Positioning Device Systems

Body belt or body harness systems shall be set up so that an employee can free fall no farther than two (2) feet, and shall be secured to an anchorage capable of supporting twice the potential impact load or 3000 pounds, whichever is greater. Requirements for snaphooks, dee-rings, and other connectors are the same as detailed in this Program under Personal Fall Arrest Systems.

E. Safety Monitoring Systems

In situations when no other fall protection has been implemented, LLR Safety Manager(s) shall monitor the safety of employees in these work areas. The LLR

Safety Manager(s) shall be:

- 1. competent in the recognition of fall hazards;
- 2. capable of warning workers of fall hazard dangers;
- 3. operating on the same walking/working surfaces as the employees and able to see them;
- 4. close enough to work operations to communicate orally with employees; and
- 5. free of other job duties that might distract them from the monitoring function.

No employees other than those engaged in the work being performed under the Safety Monitoring System shall be allowed in the area. All employees under a Safety Monitoring System are required to promptly comply with the fall hazard warnings of the LLR Safety Manager(s).

- F. Safety Net Systems
  - 1. Safety net systems must be installed no more than 30 feet below the walking/working surface with sufficient clearance to prevent contact with the surface below, and shall be installed with sufficient vertical and horizontal distances as described in the OSHA Fall Protection Standard.
  - 2. All nets shall be inspected at least once a week for wear, damage, or deterioration by LLR Safety Manager. Defective nets shall be removed from use and replaced with acceptable nets.
  - 3. All nets shall be in compliance with mesh, mesh crossing, border rope, and connection specifications as described in the OSHA Fall Protection Standard.
  - 4. When nets are used on bridges, the potential fall area from the walking/working surface shall remain unobstructed.
  - 5. Objects that have fallen into safety nets shall be removed as soon as possible, and at least before the next working shift.
- G. Warning Line Systems

Warning line systems consisting of supporting stanchions and ropes, wires, or chains shall be erected around all sides of roof work areas.

- 1. Lines shall be flagged at no more than six (6) foot intervals with high-visibility materials.
- 2. The lowest point of the line (including sag) shall be between 34 and 39 inches from the walking/working surface.
- 3. Stanchions of warning line systems shall be capable of resisting at least 16 pounds of force.
- 4. Ropes, wires, or chains must have a minimum tensile strength of 500 pounds.
- 5. Warning line systems shall be erected at least six (6) feet from the edge, except in areas where mechanical equipment is in use. When mechanical

equipment is in use, warning line systems shall be erected at least six (6) feet from the parallel edge, and at least ten (10) feet from the perpendicular edge.

# VIII. TASKS AND WORK AREAS REQUIRING FALL PROTECTION

Unless otherwise specified, LLR Safety Manager(s) shall evaluate the worksite(s) and determine the specific type(s) of fall protection to be used in the following situations.

In the event of fall and recovery is needed call 911.

A. Framework and Reinforcing Steel

Fall protection will be provided when an employee is climbing or moving at a height of over 24 feet when working with rebar assemblies.

#### B. Hoist Areas

Guardrail systems or personal fall arrest systems will be used in hoist areas when an employee may fall six (6) feet or more. If guardrail systems must be removed for hoisting, employees are required to use personal fall arrest systems.

#### C. Holes

Covers or guardrail systems shall be erected around holes (including skylights) that are six (6) feet or more above lower levels. If covers or guardrail systems must be removed, employees are required to use personal fall arrest systems.

# D. Leading Edges

Guardrail systems, safety net systems, or personal fall arrest systems shall be used when employees are constructing a leading edge that is six (6) feet or more above lower levels. An alternative Fall Protection Plan shall be used if LLR Safety Manager(s) determines that the implementation of conventional fall protection systems is infeasible or creates a greater hazard to employees. All alternative Fall Protection Plans for work on leading edges shall:

- 1. be written specific to the particular jobsite needs;
- 2. include explanation of how conventional fall protection is infeasible or creates a greater hazard to employees;
- 3. explain what alternative fall protection will be used for each task;
- 4. be maintained in writing at the jobsite by LLR Safety Manager; and
- 5. meet the requirements of 29 CFR 1926.502(k).

### E. Overhand Bricklaying and Related Work

Guardrail systems, safety net systems, personal fall arrest systems, or controlled access zones shall be provided to employees engaged in overhead bricklaying or related work six (6) feet or more above the lower level. All employees reaching more than ten (10) inches below the walking/working surface shall be protected by guardrail systems, safety net systems, or personal fall arrest systems.

### F. Precast Concrete Erection

Guardrail systems, safety net systems, or personal fall arrest systems shall be provided to employees working six (6) feet or more above the lower level while erecting or grouting precast concrete members. An alternative Fall Protection Plan shall be used if LLR Safety Manager(s) determines that the implementation of conventional fall protection systems is infeasible or creates a greater hazard to employees. All alternative Fall Protection Plans for precast concrete erection shall:

- 1. be written specific to the particular jobsite needs;
- 2. include explanation of how conventional fall protection is infeasible or creates a greater hazard to employees;
- 3. explain what alternative fall protection will be used for each task;
- 4. be maintained in writing at the jobsite by LLR Safety Manager; and
- 5. meet the requirements of 29 CFR 1926.502(k).

#### G. Residential Construction

Guardrail systems, safety net systems, or personal fall arrest systems shall be provided to employees working six (6) feet or more above the lower level on residential construction projects. However, certain tasks may be performed without the use of conventional fall protection if LLR Safety Manager has determined that such fall protection is infeasible or creates greater hazards to employees. LLR Safety Manager shall follow the guidelines of 29 CFR 1926, Subpart M, Appendix E in the development of alternative Fall Protection Plans for residential construction projects (see Attachment A).

# H. Roofing

# 1. Low-Slope Roofs

Fall protection shall be provided to employees engaged in roofing activities on lowslope roofs with unprotected sides and edges six (6) feet or more above lower levels. The type(s) of fall protection needed shall be determined by LLR Safety Manager, and may consist of guardrail systems, safety net systems, personal fall arrest systems, or a combination of a warning line system and safety net system, warning line system and personal fall arrest system, or warning line system and safety monitoring system. On roofs 50 feet or less in width, the use of a safety monitoring system without a warning line system is permitted.

2. Steep Roofs

Guardrail systems with toeboards, safety net systems, or personal fall arrest systems will be provided to employees working on a steep roof with unprotected sides and edges six (6) feet or more above lower levels, as determined by *LLR Safety Manager*.

# I. Wall Openings

Guardrail systems, safety net systems, or a personal fall arrest system will be provided to employees working on, at, above, or near wall openings when the outside bottom edge of the wall opening is six (6) feet or more above lower levels and the inside bottom edge of the wall opening is less than 39 inches above the walking/working surface. The type of fall protection to be used will be determined by LLR Safety Manager.

J. Ramps, Runways, and Other Walkways

Employees using ramps, runways, and other walkways six (6) feet or more above the lower level shall be protected by guardrail systems.

# IX. PROTECTION FROM FALLING OBJECTS

When guardrail systems are in use, the openings shall be small enough to prevent potential passage of falling objects. The following procedures must be followed by all employees to prevent hazards associated with falling objects.

- A. No materials (except masonry and mortar) shall be stored within four (4) feet of working edges.
- B. Excess debris shall be removed regularly to keep work areas clear.
- C. During roofing work, materials and equipment shall be stored no less than six(6) feet from the roof edge unless guardrails are erected at the edge.
- D. Stacked materials must be stable and self-supporting.
- E. Canopies shall be strong enough to prevent penetration by falling objects.
- F. Toeboards erected along the edges of overhead walking/working surfaces shall be:
  - 1. capable of withstanding a force of at least 50 pounds; and
  - 2. solid with a minimum of three and a half  $(3 \frac{1}{2})$  inches tall and no more than one quarter (1/4) inch clearance above the walking/working surface.
- G. Equipment shall not be piled higher than the toeboard unless sufficient paneling or screening has been erected above the toeboard.

# **X.** ACCIDENT INVESTIGATIONS

All incidents that result in injury to workers, as well as near misses, regardless of their nature, shall be reported and investigated. Investigations shall be conducted by LLR Safety Manager as soon after an incident as possible to identify the cause and means of prevention to eliminate the risk of reoccurrence.

In the event of such an incident, the Fall Protection Program (and alternative Fall Protection Plans, if in place) shall be reevaluated by LLR Safety Manager to determine if additional practices, procedures, or training are necessary to prevent similar future incidents.

# XI. CHANGES TO THE PLAN

Any changes to the Fall Protection Program (and alternative Fall Protection Plans, if in place) shall be approved by LLR Safety Manager, and shall be reviewed by a qualified person as the job progresses to determine additional practices, procedures or training needs necessary to prevent fall injuries. Affected employees shall be notified of all procedure changes, and trained if necessary. A copy of this plan, and any additional alternative Fall Protection Plans, shall be maintained at the jobsite by LLR Safety Manager.

# XII. GLOSSARY

**Anchorage**: a secure point of attachment for lifelines, lanyards, or deceleration devices.

**Body belt**: a strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

**Body harness**: straps that may be secured about the person in a manner that distributes the fall-arrest forces over at least the thighs, pelvis, waist, chest, and shoulders with a means for attaching the harness to other components of a personal fall arrest system.

**Connector:** A device that is used to couple (connect) parts of a personal fall arrest system or positioning device system together.

**Controlled access zone**: a work area designated and clearly marked in which certain types of work (such as overhand bricklaying) may take place without the use of conventional fall protection systems (guardrail, personal arrest, or safety net) to protect the employees working in the zone.

Deceleration device: any mechanism, such as a rope, grab, ripstitch lanyard,

specially- woven lanyard, tearing lanyard, deforming lanyard, or automatic selfretracting lifeline/lanyard, which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limits the energy imposed on an employee during fall arrest.

**Deceleration distance**: the additional vertical distance a falling person travels, excluding lifeline elongation and free fall distance, before stopping, from the point at which a deceleration device begins to operate.

**Guardrail system**: a barrier erected to prevent employees from falling to lower levels.

**Hole**: a void or gap two (2) inches (5.1 centimeters) or more in the least dimension in a floor, roof, or other walking/working surface.

**Lanyard**: a flexible line of rope, wire rope, or strap that generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline, or anchorage.

**Leading edge**: the edge of a floor, roof, or formwork for a floor or other walking/working surface (such as a deck) which changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed.

**Lifeline:** a component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to stretch horizontally (horizontal lifeline), that serves as a means for connecting other components of a personal fall arrest system to an anchorage.

**Low slope roof**: a roof having a slope less than or equal to 4 in 12 (vertical to horizontal).

**Opening**: a gap or void 30 inches (76 centimeters) or more high and 18 inches (46 centimeters) or more wide, in a wall or partition through which employees can fall to a lower level.

**Personal fall arrest system**: a system including but not limited to an anchorage, connectors, and a body harness used to arrest an employee in a fall from a working level.

**Positioning device system**: a body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning backwards.

Rope grab: a deceleration device that travels on a lifeline and automatically, by

friction, engages the lifeline and locks to arrest a fall.

**Safety monitoring system**: a safety system in which a competent person is responsible for recognizing and warning employees of fall hazards.

**Self-retracting lifeline/lanyard**: a deceleration device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under minimal tension during normal employee movement and which, after onset of a fall, automatically locks the drum and arrests the fall.

**Snaphook**: a connector consisting of a hook-shaped member with a normally closed keeper, or a similar arrangement, which may be opened to permit the hook to receive an object and, when released automatically, closes to retain the object.

Steep roof: a roof having a slope greater than 4 in 12 (vertical to horizontal).

**Toeboard**: a low protective barrier that prevents material and equipment from falling to lower levels and which protects personnel from falling.

**Unprotected sides and edges**: any side or edge (except at entrances to points of access) of a walking/working surface (e.g., floor, roof, ramp, or runway) where there is no wall or guardrail system at least 39 inches (1 meter) high.

**Walking/working surface**: any surface, whether horizontal or vertical, on which an employee walks or works, including but not limited to floors, roofs, ramps, bridges, runways, formwork, and concrete reinforcing steel. Does not include ladders, vehicles, or trailers on which employees must be located to perform their work duties.

**Warning line system**: a barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge and which designates an area in which roofing work may take place without the use of guardrail, body belt, or safety net systems to protect employees in the area.

# Attachment A Sample Fall Protection Plan for Residential Construction

This Fall Protection Plan is specific to the following project:

Job Location:	
Date Plan Prepared:	
Date Plan Modified:	
Plan Prepared by:	
Plan Approved by:	
Plan Supervised by:	

# *I.* STATEMENT OF COMPANY POLICY

LLR Construction is dedicated to the protection of its employees from occupational injuries. All employees of LLR Construction have the responsibility to work safely on the job. The purpose of this Plan is to supplement our existing Fall Protection Program and to ensure that every employee who works for LLR Construction recognizes workplace fall hazards and takes the appropriate measures to address those hazards.

This Fall Protection Plan addresses the use of conventional fall protection at a number of areas on the project, and identifies specific activities that require nonconventional means of fall protection. During the construction of residential buildings under 48 feet in height, it is sometimes infeasible or creates a greater hazard to use conventional fall protection systems at specific areas or for specific tasks. Such areas or tasks include, but are not limited to:

- A. setting and bracing of roof trusses and rafters;
- B. installation of floor sheathing and joists;
- C. roof sheathing operations; and
- D. erecting exterior walls.

In these cases, conventional fall protection systems may not be the safest choice for this project. This Plan is designed to enable employees to recognize fall hazards associated with this job and to establish safe procedures to prevent falls to lower levels through holes and openings in walking/working surfaces.

### **II.** ASSIGNMENT OF RESPONSIBILITY

#### A. Employer

- 1. Ensure that all employees understand and adhere to the procedures of this Plan and the instructions of the crew supervisor or foreman.
- 2. Assign a competent person to be responsible for managing this Fall Protection Plan.
- 3. Provide appropriate fall protection to employees as detailed in this Plan.

#### B. Employee

- 1. Bring to the attention of LLR Construction management any unsafe or hazardous conditions or practices that may cause injury to themselves or other employees.
- 2. Report any incident which causes injury to self or a co-worker.
- 3. Each employee will be trained in these procedures and will be expected to strictly adhere to them except when doing so would expose him/her to a greater hazard. If, in the employee's opinion, the procedures in this Plan pose a risk, the employee is to notify LLR Safety Manager and have their concern(s) addressed before proceeding with work.

#### C. Plan Manager

LLR Safety Manager shall function as Manager of this Fall Protection Plan and has the following responsibilities:

- 1. Implement this Fall Protection Plan.
- 2. Perform continual observational checks of work operations to identify hazards.
- 3. Enforce the company policy and the procedures of this Plan.
- 4. Coordinate with crew supervisors or foremen to correct any unsafe practices or conditions immediately.
- 5. Provide training on this Plan to all affected employees before work begins on this project.

# III. FALL PROTECTION TO BE USED ON THIS JOB

Installation of roof trusses/rafters, exterior wall erection, roof sheathing, floor sheathing, and joint/truss activities will be conducted by employees who are specifically trained to do this type of work and are trained to recognize fall hazards. The nature of such work normally exposes employees to fall hazards for a short period of time. This Plan details how LLR Construction will minimize these hazards.

#### A. Controlled Access Zones

When using this Plan to implement the fall protection options available, workers must be protected through limited access to high hazard locations. Before any nonconventional fall protection systems are used as part of this work Plan, a controlled access zone (CAZ) shall be clearly defined by a LLR Safety Manager as an area where a recognized hazard exists. The demarcation of the CAZ shall be communicated by LLR Safety Manager in a recognized manner, either through signs, wires, tapes, ropes, or chains.

LLR Construction shall take the following steps to ensure that the CAZ is clearly marked or controlled by a competent person.

- 1. All access to the CAZ shall be restricted to authorized entrants only.
- 2. All workers who are permitted in the CAZ must be listed in the appropriate sections of this Plan (or be visibly identifiable by LLR Safety Manager prior to implementation).
- 3. LLR Safety Manager shall ensure that all protective elements of the CAZ be implemented prior to the beginning of work.
- B. Installation of Roof Truss or Rafter Erection
  - 1. During the erection and bracing of roof trusses/rafters, conventional fall protection may present a greater hazard to workers. On this job, safety nets will not provide adequate fall protection because the nets will cause the walls to collapse. In addition, there are also no suitable attachment or anchorage points for guardrails or personal fall arrest systems.
  - 2. Requiring employees on this job to use a ladder for the entire installation process will cause greater hazard because the worker must stand on the ladder with his back or side to the front of the ladder. While erecting the truss or rafter, the worker will need both hands to maneuver the truss and therefore cannot hold onto the ladder. In addition, ladders cannot be adequately protected from movement while trusses are being maneuvered into place. Employees may experience fatigue because of the increased overhead work with heavy materials, which can also lead to a greater hazard.
  - 3. Exterior scaffolds cannot be utilized on this job because the ground, after recent backfilling, cannot support the scaffolding. In most cases, the erection and dismantling of the scaffold would expose workers to a greater fall hazard than the erection of the trusses/rafters.
  - 4. On all walls eight (8) feet or less in height, employees will install interior scaffolds along interior walls below the location where the trusses/rafters will be erected. ASawhorse@scaffold constructed of 46 inch sawhorses and two (2) foot by ten (10) foot planks will often allow workers to be elevated high enough to allow for the erection of trusses and rafters without working on the top plate of the wall.

- 5. In structures that have walls higher than eight (8) feet and where the use of scaffolds and ladders would create a greater hazard, safe working procedures will be used when working on the top plate, which will be monitored by LLR Safety Manager. During all stages of truss/rafter erection, the stability of the trusses/rafters will be ensured at all times.
- 6. LLR Construction shall take the following steps to protect workers who are exposed to fall hazards while working from the top plate installing trusses/rafters:
  - a. Only trained and approved workers will be allowed to work on the top plate during roof truss or rafter installation. A list of approved employees will be maintained by the LLR Safety Manager as an attachment to this Plan.
  - b. Employees shall have no other duties to perform during truss/rafter erection procedures.
  - c. All trusses/rafters will be adequately braced before any worker will be permitted to use the truss/rafter as a support.
  - d. Employees will remain on the top plate using the previously stabilized truss/rafter as a support while other trusses/rafters are being erected.
  - e. Employees will leave the area of the secured trusses only when it is necessary to secure another truss/rafter.
  - f. The first two (2) trusses/rafters will be set from ladders leaning on side walls at points where the walls can support the weight of the ladder.
  - g. An employee will climb onto the interior top plate via a ladder to secure the peaks of the first two trusses/rafters being set.
- 7. Employees responsible for detaching trusses from cranes and/or securing trusses at the peaks traditionally are positioned at the peak of the trusses/rafters. There are also situations where workers securing rafters to ridge beams will be positioned at the top of the ridge beam. LLR Construction will take the following steps to protect workers who are exposed to fall hazards while securing trusses/rafters at the peak of the trusses/ridge beam:
  - a. Only trained and approved workers will be allowed to work at the peak during roof truss or rafter installation. A list of approved employees will be maintained by LLR Safety Manager as an attachment to this Plan.
  - b. Once truss or rafter installation begins, workers not involved in that activity shall not stand or walk below or adjacent to the roof opening or exterior walls in any area where they could be struck by falling objects.
  - c. Employees shall have no duties other than securing/bracing the trusses/ridge beams.
  - d. Employees positioned at the peaks, in the webs of trusses, or on top of the ridge beam shall work from a stable position. A stable position for an employee will be either sitting on a "ridge seat" or other equivalent surface that provides additional stability, or positioning themselves in previously

stabilized trusses/rafters and leaning into and reaching through the trusses/rafters.

- e. Workers shall not remain on or in the peak/ridge any longer than necessary to safely complete the task.
- C. Roof Sheathing Operations
  - 1. Workers typically install roof sheathing after all trusses/rafters and any permanent truss bracing is in place. Because roof structures are unstable until some sheathing is installed, workers installing roof sheathing cannot be protected from fall hazards by conventional fall protection systems until it is determined that the roofing system can be used as an anchorage point. At that point, employees shall be protected by personal fall arrest systems.
  - 2. Trusses/rafters are subject to collapse if a worker falls while attached to a single truss with a belt/harness. Nets could also cause collapse, and there is insufficient structure to attach guardrails.
  - 3. All employees will ensure that they have secure footing before they attempt to walk on the sheathing, and will clean their shoes/boots of mud or other slip hazards.
  - 4. To minimize the time workers must be exposed to a fall hazard, materials will be staged to allow for the quickest installation of sheathing.
  - 5. LLR Construction will take the following steps to protect workers who are exposed to fall hazards while installing roof sheathing:
    - a. Once roof sheathing installation begins, employees not involved in that activity shall not stand or walk below or adjacent to the roof opening or exterior walls in any area where they could be struck by falling objects.
    - b. LLR Safety Manager shall determine the limits of this area, which shall be clearly communicated to workers prior to placement of the first piece of roof sheathing.
    - c. LLR Safety Manager may suspend work on the roof for brief periods as necessary to allow other workers to pass through such areas when this would not create a greater hazard.
    - d. Only trained and approved workers will be allowed to install roof sheathing. A list of approved employees will be maintained by LLR Safety Manager as an attachment to this Plan.
    - e. The bottom row of roof sheathing may be installed by workers standing in truss webs.
    - f. After the bottom row of roof sheathing is installed, a slide guard extending the width of the roof shall be securely attached to the roof. Slide guards will be at least four (4) inches in height and capable of limiting the uncontrolled slide of workers. Workers shall install the slide guard while standing in truss webs and leaning over the sheathing.
    - g. Additional rows of sheathing may be installed by workers positioned on previously installed rows of sheathing with slide guards.

- h. Additional slide guards shall be securely attached to the roof at intervals not to exceed 13 feet as successive rows of sheathing are installed. For roofs with pitches in excess of 9 in 12, slide guards will be installed at four (4) foot intervals.
- i. When wet weather conditions (rain, snow, or sleet) are present, roof sheathing operations shall be suspended unless safe footing can be assured for those workers installing sheathing.
- j. When strong winds (over 40 miles per hour) are present, roof sheathing operations shall be suspended unless wind breakers are erected.
- D. Installation of Floor Joists and Sheathing

LLR Construction will take the following steps to protect workers who are exposed to fall hazards while installing floor joists or floor sheathing:

- 1. Only trained and approved workers will be allowed to install floor joists and floor sheathing. A list of approved employees will be maintained by LLR Safety Manager as an attachment to this Plan.
- 2. Materials for this work shall be conveniently staged to allow for easy access to workers.
- 3. The first-floor joints or trusses will be rolled into position and secured either from the ground, ladders, or sawhorse scaffolds.
- 4. Each successive floor joist or trust will be rolled into place and secured from a platform created from a sheet of plywood laid over the previously secured floor joists or trusses.
- 5. Except for the first row of sheathing, which will be installed from ladders or the ground, employees shall work from the established deck.
- 6. Any employees not assisting in the leading edge construction while leading edges still exist (i.e., cutting the decking for installers) shall not be permitted within six (6) feet of the leading edge under construction.
- E. Erection of Exterior Walls

LLR Construction will take the following steps to protect workers who are exposed to fall hazards during the construction and erection of exterior walls:

- 1. Only trained and approved workers will be allowed to construct and erect exterior walls. A list of approved employees will be maintained by LLR Safety Manager as an attachment to this Plan.
- 2. A painted line six (6) feet from the perimeter will be clearly marked prior to any wall erection activities to warn of the approaching unprotected edge.
- 3. Materials for operations shall be conveniently staged to minimize fall hazards.
- 4. Workers constructing exterior walls shall complete as much cutting of materials and other preparation as possible away from the edge of the deck.

# **IV.** ENFORCEMENT

Constant awareness of and respect for fall hazards, as well as compliance with all safety rules, are considered conditions of employment with LLR Construction. The crew supervisor or foreman, as well as LLR Safety Manager or company management, reserve the right to issue disciplinary warnings to employees, up to and including termination, for failure to follow the guidelines of this Plan.

#### V. ACCIDENT INVESTIGATIONS

All incidents that result in injury to workers and near misses, regardless of their nature, shall be reported and investigated. All incidents shall be investigated as soon as possible by

LLR Safety Manager to identify the cause and means of prevention to prevent future occurrences.

In the event of such an incident, this Fall Protection Plan shall be reviewed to determine if additional practices, procedures, or training should be implemented to prevent similar incidents in the future.

# VI. CHANGES TO THE PLAN

Any changes to this Plan will be made by LLR Safety Manager. This Plan shall be reviewed by LLR Safety Manager as the job progresses to determine if additional practices, procedures, or training are needed to improve or provide additional fall protection. Affected employees shall be notified of changes to this Plan, and retrained, if necessary. A copy of this Plan and all approved changes shall be maintained at the jobsite by LLR Safety Manager.

### FIRE PREVENTION PLAN

#### I. OBJECTIVE

The purpose of this Fire Prevention Plan is to eliminate the causes of fire, prevent loss of life and property by fire, and to comply with the Occupational Safety and Health Administration's (OSHA) standard on fire prevention, 29 CFR 1910.39. It provides employees with information and guidelines that will assist them in recognizing, reporting, and controlling fire hazards.

# II. BACKGROUND

*LLR Construction* is committed to minimizing the threat of fire to employees, visitors, and property. LLR Construction complies with all applicable laws, regulations, codes, and good practices pertaining to fire prevention. LLR Construction's separate Emergency Action Plan spells out the procedures for responding to fires. This Fire Prevention Plan serves to reduce the risk of fires at LLR Construction/Projects and Offices in the following ways:

- A. identifies materials that are potential fire hazards and their proper handling and storage procedures;
- B. distinguishes potential ignition sources and the proper control procedures of those materials;
- C. describes fire protection equipment and/or systems used to control fire hazards;
- D. identifies persons responsible for maintaining the equipment and systems installed to prevent or control ignition of fires;
- E. identifies persons responsible for the control and accumulation of flammable or combustible material;
- F. describes good housekeeping procedures necessary to insure the control of accumulated flammable and combustible waste material and residues to avoid a fire emergency; and
- G. provides training to employees with regard to fire hazards to which they may be exposed.

# **III. ASSIGNMENT OF RESPONSIBILITY**

Fire safety is everyone's responsibility. All employees should know how to prevent and respond to fires, and are responsible for adhering to company policy regarding fire emergencies.

# A. Management

Management determines the LLR Construction fire prevention and protection policies. Management will provide adequate controls to provide a safe workplace, and will provide adequate resources and training to its employees to encourage fire prevention and the safest possible response in the event of a fire emergency.

#### B. Plan Administrator

LLR Safety Manager(s) shall manage the Fire Prevention Plan for LLR Construction, and shall maintain all records pertaining to the plan. The Plan Administrator shall also:

- 1. Develop and administer the LLR Construction fire prevention training program.
- 2. Ensure that fire control equipment and systems are properly maintained.
- 3. Control fuel source hazards.
- 4. Conduct fire risk surveys (see Appendix A) and make recommendations.

#### C. Supervisors

Supervisors are responsible for ensuring that employees receive appropriate fire safety training, and for notifying LLR Safety Manager when changes in operation increase the risk of fire. Supervisors are also responsible for enforcing LLR Construction fire prevention and protection policies.

#### D. Employees

All employees shall:

- 1. Complete all required training before working without supervision.
- 2. Conduct operations safely to limit the risk of fire.
- 3. Report potential fire hazards to their supervisors.
- 4. Follow fire emergency procedures.

# IV. PLAN IMPLEMENTATION

A. Good Housekeeping

To limit the risk of fires, employees shall take the following precautions:

- 1. Minimize the storage of combustible materials.
- 2. Make sure that doors, hallways, stairs, and other exit routes are kept free of obstructions.
- 3. Dispose of combustible waste in covered, airtight, metal containers.
- 4. Use and store flammable materials in well-ventilated areas away from ignition sources.
- 5. Use only nonflammable cleaning products.
- 6. Keep incompatible (i.e., chemically reactive) substances away from each other.
- 7. Perform "hot work" (i.e., welding or working with an open flame or other ignition sources) in controlled and well-ventilated areas.

- 8. Keep equipment in good working order (i.e., inspect electrical wiring and appliances regularly and keep motors and machine tools free of dust and grease.
- 9. Ensure that heating units are safeguarded.
- 10. Report all gas leaks immediately. LLR Safety Manager shall ensure that all gas leaks are repaired immediately upon notification.
- 11. Repair and clean up flammable liquid leaks immediately.
- 12. Keep work areas free of dust, lint, sawdust, scraps, and similar material.
- 13. Do not rely on extension cords if wiring improvements are needed, and take care not to overload circuits with multiple pieces of equipment.
- 14. Ensure that required hot work permits are obtained.
- 15. Turn off electrical equipment when not in use.
- 16. Perform monthly visual inspections on fire extinguishers as well as annual maintenance checks.
- B. Maintenance

LLR Safety Manager(s) will ensure that equipment is maintained according to manufacturers' specifications. LLR Construction will also comply with requirements of the National Fire Protection Association (NFPA) codes for specific equipment. Only properly trained individuals shall perform maintenance work.

The following equipment is subject to the maintenance, inspection, and testing procedures:

- 1. equipment installed to detect fuel leaks, control heating, and control pressurized systems;
- 2. portable fire extinguishers, automatic sprinkler systems, and fixed extinguishing systems;
- 3. detection systems for smoke, heat, or flame;
- 4. fire alarm systems; and
- 5. emergency backup systems and the equipment they support.

# V. TYPES OF HAZARDS

The following sections address the major workplace fire hazards at LLR Construction's facilities and the procedures for controlling the hazards.

A. Electrical Fire Hazards

Electrical system failures and the misuse of electrical equipment are leading causes of workplace fires. Fires can result from loose ground connections, wiring with frayed insulation, or overloaded fuses, circuits, motors, or outlets.

To prevent electrical fires, employees shall:

- 1. Make sure that worn wires are replaced.
- 2. Use only appropriately rated fuses.
- 3. Never use extension cords as substitutes for wiring improvements.
- 4. Use only approved extension cords [i.e., those with the Underwriters Laboratory (UL) or Factory Mutual (FM) label].
- 5. Check wiring in hazardous locations where the risk of fire is especially high.
- 6. Check electrical equipment to ensure that it is either properly grounded or double insulated.
- 7. Ensure adequate spacing while performing maintenance.
- B. Portable Heaters

All portable heaters shall be approved by LLR Safety Manager. Portable electric heaters shall have tip-over protection that automatically shuts off the unit when it is tipped over. There shall be adequate clearance between the heater and combustible furnishings or other materials at all times.

C. Office Fire Hazards

Fire risks are not limited to LLR Construction's industrial facilities. Fires in offices have become more likely because of the increased use of electrical equipment, such as computers and fax machines. To prevent office fires, employees shall:

- 1. Avoid overloading circuits with office equipment.
- 2. Turn off nonessential electrical equipment at the end of each workday.
- 3. Keep storage areas clear of rubbish.
- 4. Ensure that extension cords are not placed under carpets.
- 5. Ensure that trash and paper set aside for recycling is not allowed to accumulate.
- D. Cutting, Welding, and Open Flame Work

LLR Safety Manager(s) will ensure the following:

- 1. All necessary hot work permits have been obtained prior to work beginning.
- 2. Cutting and welding are done by authorized personnel in designated cutting and welding areas whenever possible.
- 3. Adequate ventilation is provided.
- 4. Torches, regulators, pressure-reducing valves, and manifolds are UL listed or FM approved.
- 5. Oxygen-fuel gas systems are equipped with listed and/or approved backflow valves and pressure-relief devices.
- 6. Cutters, welders, and helpers are wearing eye protection and protective clothing as appropriate.

- 7. Cutting or welding is prohibited in sprinklered areas while sprinkler protection is out of service.
- 8. Cutting or welding is prohibited in areas where explosive atmospheres of gases, vapors, or dusts could develop from residues or accumulations in confined spaces.
- 9. Cutting or welding is prohibited on metal walls, ceilings, or roofs built of combustible sandwich-type panel construction or having combustible covering.
- 10. Confined spaces such as tanks are tested to ensure that the atmosphere is not over ten percent of the lower flammable limit before cutting or welding in or on the tank.
- 11. Small tanks, piping, or containers that cannot be entered are cleaned, purged, and tested before cutting or welding on them begins.
- 12. Fire watch has been established.
- E. Flammable and Combustible Materials

LLR Safety Manager shall regularly evaluate the presence of combustible materials at *LLR Construction* (see Appendix D).

Certain types of substances can ignite at relatively low temperatures or pose a risk of catastrophic explosion if ignited. Such substances obviously require special care and handling.

1. Class A combustibles.

These include common combustible materials (wood, paper, cloth, rubber, and plastics) that can act as fuel and are found in non-specialized areas such as offices.

To handle Class A combustibles safely:

- a. Dispose of waste daily.
- b. Keep trash in metal-lined receptacles with tight-fitting covers (metal wastebaskets that are emptied every day do not need to be covered).
- c. Keep work areas clean and free of fuel paths that could allow a fire to spread.
- d. Keep combustibles away from accidental ignition sources, such as hot plates, soldering irons, or other heat- or spark-producing devices.
- e. Store paper stock in metal cabinets.
- f. Store rags in metal bins with self-closing lids.
- g. Do not order excessive amounts of combustibles.
- h. Make frequent inspections to anticipate fires before they start.

Water, multi-purpose dry chemical (ABC), and halon 1211 are approved fire extinguishing agents for Class A combustibles.

2. Class B combustibles.

These include flammable and combustible liquids (oils, greases, tars, oil-based paints, and lacquers), flammable gases, and flammable aerosols.

To handle Class B combustibles safely:

- a. Use only approved pumps, taking suction from the top, to dispense liquids from tanks, drums, barrels, or similar containers (or use approved self-closing valves or faucets).
- b. Do not dispense Class B flammable liquids into containers unless the nozzle and container are electrically interconnected by contact or by a bonding wire. Either the tank or container must be grounded.
- c. Store, handle, and use Class B combustibles only in approved locations where vapors are prevented from reaching ignition sources such as heating or electric equipment, open flames, or mechanical or electric sparks.
- d. Do not use a flammable liquid as a cleaning agent inside a building (the only exception is in a closed machine approved for cleaning with flammable liquids).
- e. Do not use, handle, or store Class B combustibles near exits, stairs, or any other areas normally used as exits.
- f. Do not weld, cut, grind, or use unsafe electrical appliances or equipment near Class B combustibles.
- g. Do not generate heat, allow an open flame, or smoke near Class B combustibles.
- h. Know the location of and how to use the nearest portable fire extinguisher rated for Class B fire.

Water should not be used to extinguish Class B fires caused by flammable liquids. Water can cause the burning liquid to spread, making the fire worse. To extinguish a fire caused by flammable liquids, exclude the air around the burning liquid. The following fire-extinguishing agents are approved for Class B combustibles: carbon dioxide, multi-purpose dry chemical (ABC), halon 1301, and halon 1211. (**NOTE:** Halon has been determined to be an ozone-depleting substance and is no longer being manufactured. Existing systems using halon can be kept in place.)

F. Smoking

Smoking is prohibited in all LLR Construction buildings. Certain outdoor areas may also be designated as no smoking areas. The areas in which smoking is prohibited outdoors are identified by NO SMOKING signs.

# VI. TRAINING

LLR Safety Manager shall present basic fire prevention training to all employees upon employment, and shall maintain documentation of the training, which includes:

- A. review of 29 CFR 1910.38, including how it can be accessed;
- B. this Fire Prevention Plan, including how it can be accessed;
- C. good housekeeping practices;
- D. proper response and notification in the event of a fire;
- E. instruction on the use of portable fire extinguishers (as determined by company policy in the Emergency Action Plan); and
- F. recognition of potential fire hazards.

Supervisors shall train employees about the fire hazards associated with the specific materials and processes to which they are exposed, and will maintain documentation of the training. Employees will receive this training:

- A. at their initial assignment;
- B. annually; and
- C. when changes in work processes necessitate additional training.

#### VII. PROGRAM REVIEW

LLR Safety Manager shall review this Fire Prevention Plan at least annually for necessary changes.

# Appendix A Fire Risk Survey

Location: \_\_\_\_\_-

Type of Fire	Location	<b>Emergency Actions Required PPE</b>
Hazard		

Completed by:\_\_\_\_\_

Date:\_\_\_\_\_

# Appendix B

# General Fire Prevention Checklist

Use this checklist to ensure fire prevention measures conform with the general fire prevention requirements found in OSHA standards.

□ Yes□ No	Is the local fire department acquainted with your facility, its location, and specific hazards?
□ Yes□ No	If you have a fire alarm system, is it tested at least annually?
□ Yes□ No	If you have interior stand pipes and valves, are they inspected regularly?
□ Yes□ No	If you have outside private fire hydrants, are they on a routine preventive maintenance schedule and flushed at least once a year?
□ Yes□ No	Are fire doors and shutters in good operating condition?
□ Yes□ No	Are fire doors and shutters unobstructed and protected against obstructions, including their counterweights?
□ Yes□ No	Are automatic sprinkler system water control valves, air pressure, and water pressure checked weekly or periodically?
□ Yes□ No	Has responsibility for the maintenance of automatic sprinkler systems been assigned to an employee or contractor?
□ Yes□ No	Are sprinkler heads protected by metal guards?
□ Yes□ No	Is proper clearance maintained below sprinkler heads?
□ Yes□ No	Are portable fire extinguishers provided in adequate number and type?*
□ Yes□ No	Are fire extinguishers mounted in readily accessible locations?*
□ Yes□ No	Are fire extinguishers recharged regularly with the recharge date noted on an inspection tag?*
□ Yes□ No	Are employees periodically instructed in the use of extinguishers and fire protection procedures?*

\*(NOTE: Use of fire extinguishers is based on company policy regarding employee fire fighting in your Emergency Action Plan and local fire code.)

Completed by:\_\_\_\_\_

Date:\_\_\_\_\_

### Appendix C Exits Checklist

Use this checklist to evaluate LLR Construction's compliance with OSHA's standard on emergency exit routes.

 $\hfill Yes \hfill No \hfill Section 1.5 Is each exit marked with an exit sign and illuminated by a reliable light source?$ 

 $\hfill\square$  Yes  $\hfill\square$  No  $\hfill$  Are the directions to exits, when not immediately apparent, marked with visible signs?

□ Yes □ No Are doors, passageways, or stairways that are neither exits nor access to exits, and which could be mistaken for exits, marked "NOT AN EXIT" or other appropriate marking?

 $\Box$  Yes  $\Box$  No Are exit signs provided with the word "EXIT" in letters at least five inches high and with lettering at least one inch wide?

 $\Box$  Yes  $\Box$  No Are exit doors side-hinged?

 $\Box$  Yes  $\Box$  No Are all exits kept free of obstructions?

 $\Box$  Yes  $\Box$  No Are there at least two exit routes provided from elevated platforms, pits, or rooms where the absence of a second exit would increase the risk of injury from hot, poisonous, corrosive, suffocating, flammable, or explosive substances?

 $\Box$  Yes  $\Box$  No Is the number of exits from each floor of a building and from the building itself appropriate for the building occupancy? (NOTE: Do not count revolving, sliding, or overhead doors when evaluating whether there are sufficient exits.)

 $\Box$  Yes  $\Box$  No Are exit stairways that are required to be separated from other parts of a building enclosed by at least one-hour fire-resistant walls (or at least two-hour fire-resistant walls in buildings over four stories high)?

 $\Box$  Yes  $\Box$  No Are the slopes of ramps used as part of emergency building exits limited to one foot vertical and 12 feet horizontal?

 $\Box$  Yes  $\Box$  No Can exit doors be opened from the direction of exit travel without the use of a key or any special knowledge or effort?

 $\square$  Yes  $\square$  No Are doors on cold storage rooms provided with an inside release mechanism that will release the latch and open the door even if it's

padlocked or otherwise locked on the outside?

 $\Box$  Yes  $\Box$  No Where exit doors open directly onto any street, alley, or other area where vehicles may be operated, are adequate barriers and warnings provided to prevent employees from stepping into the path of traffic?

 $\Box$  Yes  $\Box$  No Are doors that swing in both directions and are located between rooms where there is frequent traffic equipped with glass viewing panels?

Completed by:\_\_\_\_\_ Date:

\_\_\_\_\_

#### Appendix D Flammable and Combustible Material Checklist

Use this checklist to evaluate LLR Construction's compliance with OSHA's standards on flammable and combustible materials:

 $\Box$ Yes  $\Box$ No Are combustible scrap, debris, and waste materials such as oily rags stored in covered metal receptacles and removed from the worksite promptly?

 $\label{eq:solution} \Box Yes \ \Box No \qquad \mbox{Are approved containers and tanks used for the storage and handling of flammable and combustible liquids?}$ 

 $\label{eq:second} \Box Yes \ \Box No \qquad \ \ Do \ storage \ rooms \ for \ flammable \ and \ combustible \ liquids have appropriate \ ventilation \ systems?$ 

□Yes □No Are NO SMOKING signs posted on liquefied petroleum gas tanks?

 $\Box$ Yes  $\Box$ No Are all solvent wastes and flammable liquids kept in fire-resistant covered containers until they are removed from the worksite?

 $\label{eq:second} \Box Yes \ \Box No \qquad \ \ Is vacuuming used whenever possible rather than blowing or sweeping combustible dust?$ 

 $\label{eq:second} \Box Yes \ \Box No \qquad \mbox{Are fuel gas cylinders and oxygen cylinders separated by} distances or fire- resistant barriers while in storage?}$ 

 $\Box$ Yes  $\Box$ No Are fire extinguishers appropriate for the materials in the areas where they are mounted?\*

□Yes □No Are appropriate fire extinguishers mounted within 75 feet of outside areas containing flammable liquids and within 10 feet of any inside storage area for such materials?\*

 $\Box$ Yes  $\Box$ No Are extinguishers free from obstruction or blockage?\*

# $\Box$ Yes $\Box$ No Are all extinguishers fully charged and in their designated places?\*

 $\Box$ Yes  $\Box$ No Where sprinkler systems are permanently installed, are the nozzle heads directed or arranged so that water will not be sprayed into operating electrical switchboards and equipment?

 $\label{eq:second} \square Yes \ \square No \qquad Are NO SMOKING signs posted in areas where flammable or combustible materials are used or stored?$ 

 $\label{eq:second} \Box Yes \ \Box No \qquad \mbox{Are safety cans utilized for dispensing flammable or combustible liquids at the point of use?}$ 

 $\label{eq:second} \Box Yes \ \Box No \qquad \qquad Are all spills of flammable or combustible liquids cleaned up promptly?$ 

 $\Box$ Yes  $\Box$ No Are storage tanks adequately vented to prevent the development of an excessive vacuum or pressure that could result from filling, emptying, or temperature changes?

\*(NOTE: Use of fire extinguishers is based on company policy regarding employee fire fighting in your Emergency Action Plan and local fire code.)

Completed by: \_\_\_\_\_

Date: \_\_\_\_\_

## FIRST AID POLICY

#### 1. Purpose and Scope

The purpose of this policy is to guide the provision of first aid to people suffering injury or illness.

First aid services are an important element of work health and safety, facilitating first initial treatment for:

- Injuries that may occur in the workplace (including fieldwork); and
- Acute personal sickness that may impact on staff members, consumers or others while at LLR Construction's premises or Jobsites.

## 2. Definitions

<u>First aid</u> is the immediate, initial attention to a person suffering an injury or illness. The aims of first aid are to prevent the occurrence of further dangerous incidents, preservation of life, stabilization of the person's condition, promotion of recovery and protection and comfort of the person.

<u>First aiders</u> are any people providing first aid who are certified by the American Red cross or equivalent organization.

Premises include offices, jobsites and vehicles.

## 3. Principles

The aims of first aid are to preserve life, prevent harm and promote recovery.

LLR Construction is committed to access to high quality first aid.

#### 4. Outcomes

Any person on LLR Construction's premises or jobsites (staff, subcontractors, visitors) have reasonable access to first aid assistance should an injury or illness occur.

First aid assistance is provided by trained first aiders, where possible.

#### 5. Functions and Delegations

As with LLR Construction Policy

## 6. Risk Management

First aid risks are regularly assessed, identified and managed. Employees are educated in first aid awareness. Appropriately qualified staff are trained first aid personnel.

Mechanisms are in place for monitoring compliance with first aid policies.

# 7. Policy Implementation

LLR Construction ensures effective implementation of first aid through:

- staff having access to policies and procedures relating to first aid
- provision of tailored training to persons with specific tasks
- record of first aid activities, including first aid training provided and undertaken, information provided to consumers and use of PPE
- mechanisms for monitoring compliance with first aid.

## 8. Policy Detail

LLR Construction is committed to providing a safe and healthy environment for all staff, subcontractors, and visitors.

#### 8.1 Assessing First Aid Requirements

Workplace activities influence potential harmful consequences for staff, subcontractors and others. Each worksite is likely to have different first aid requirements.

The LLR Construction Safety Manager will determine the number of designated First Aid Officers, the type of First Aid kit required and the organization's approach to first aid response.

Staff are encouraged to disclose health information which may assist in prompt and appropriate first aid responses to foreseeable medical emergencies.

#### 8.2 Designated First Aid Officer

Trained First Aid Officers include the following:

- a person who holds a current first aid certificate issued after successful completion of an approved first aid course; or

- a person who holds a current occupational first aid certificate issued after successful completion of an approved occupational first aid course; or
- a level 3 or greater NSW ambulance officer; or
- a registered nurse; or
- a medical practitioner.

A person with one or more of the above qualifications is appointed by the organization to be the designated First Aid Officer.

A designated first aid officer will be appointed when there are more than **10** employees and subcontractors at one site.

## **8.3** First Aid Facilities

First aid facilities are provided that are adequate for the immediate treatment of injuries and illnesses that may arise at the workplace.

First aid kits supplied comprise items in accordance with OSHA guidelines and will be readily available to first aiders. First aid kits are maintained by the designated First Aid Officer. Emergency telephone numbers are clearly marked on each first aid kit. First aid kits are to be inspected monthly to ensure they are adequately stocked with supplies.

Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities, such as emergency eye washing equipment, shall be provided within the work area.

#### 8.4 First Aid Response

While on duty all staff have a duty of care to themselves and others to provide first aid assistance to the level of their competence, and to call on expert assistance if necessary.

The designated First Aid Officer is informed of the need for first aid, and will respond immediately if available.

Emergency medical care and/or an ambulance is to be called if required.

Staff trained in first aid provide first aid assistance if there is no designated First Aid Officer present and emergency medical care and/or an ambulance has not yet arrived.

## **8.5** Personal Protection

First aiders are to assume that all blood and other body fluids are infectious and are aware of standard precautions in relation to managing blood and other body fluids, including wearing gloves when administering first aid.

Cross infection is managed while providing first aid by wearing gloves and washing hands with soap and water:

- before and after contact with an ill or injured person
- after contact with blood or and/or other body fluids or contaminated items
- when protective gloves are removed.

When soap and water are not available, first aiders will use an alcoholic based hand wash or equivalent.

LLR Construction provides personal protective equipment (PPE) to protect first aiders and ill or injured persons from risks of exposure to harm from sharp objects and blood or other body fluids. PPE complies with relevant Australian standards and includes:

- o disposable PVC, latex, and/or heavy duty gloves
- $\circ$  eye protection, such as goggles and safety glasses
- $\circ$  safety footwear
- $\circ$  resuscitation masks.

#### 8.6 First Aid Records

First aid records are integrated with the organizations incident and accident reporting system. See <u>Work Health and Safety Policy</u> for more detail.

An Incident Report form is completed by the trained First Aid Officer and/or person providing first aid and includes:

- date and time
- name of person receiving first aid
- description of symptoms
- treatment provided
- name of person providing first aid
- referral arrangements (e.g. ambulance, hospital, medical service)

- name of person completing Incident Report form.

## 9. First Aid Certification

All first aid providers must hold a valid certificate in first aid training. Only certificates from the American Red Cross or equivalent training organization that can be verified by documentary evidence will be accepted.

#### GENERAL WASTE MANAGEMENT PLAN

Reference: National Green Building Standard ICC 700-2008, Section 605.1 Project Description: Commercial new construction and additions

#### 1) Waste Management Goals:

a) The Builder has established that this project shall generate at least 50% (by weight) less construction and land-clearing waste into landfills and that processes shall be employed to ensure that this goal is met.

## 2) Responsibility:

a) The General Supervisor shall be responsible for the implementation of the administrative portions of this program, including the notification of subcontractor management, the training of the site supervisor and onsite posting of this plan.

b) The Site Supervisor will be responsible for the implementation of the on-site portions of this program including the training of subcontractor personnel.

## 3) Waste Prevention Planning:

a) In addition to other requirements specified herein it is a requirement for the work of this project that the contractor comply with the applicable federal, state and local waste disposal requirements.

b) Of the inevitable waste that is generated, the waste materials designated in this specification shall be salvaged for reuse and/or recycling where practical and possible. Waste disposal in landfills or incinerators shall be minimized where practical and possible. This means careful recycling of job site waste.

c) Project Construction Documents: The General Contractor will contractually require all subcontractors to comply with these recycling guidelines. A copy of this Construction Waste Management Plan will accompany all subcontractor agreements and require subcontractor participation.

d) Waste materials should be properly stored and handled to minimize the potential for a spill or impact to the environment. During outdoor activities, receptacles must be covered to prevent dispersion of waste

materials and to control the potential for run-off.

e) The Construction Waste Management Plan shall be implemented and executed as follows and as on the chart below:

 $\cdot$  Salvageable materials will be diverted from disposal where feasible.

 $\cdot$  There will be a designated area on the construction site reserved for materials that can be recycled.

 $\cdot$  Areas shall be marked to designate what recycle materials are to be stored there.

 $\cdot$  Hazardous waste will be managed by a licensed hazardous waste vendor.

## 4) Communication & Education Plan:

a) This Construction Waste Management Plan will be posted on-site.

b) Each subcontractor will be made aware of the intent of this project with respect to reduction of waste and recycling. On-site recycling containers and/or areas will be plainly marked.

c) The subcontractor will be expected to make sure all their crews comply with the Construction Waste Management Plan.

d) All recycling containers/areas will be clearly marked.

e) Lists of acceptable/unacceptable materials will be posted at the site.

f) All subcontractors will be informed in writing of the importance of non- contamination with other materials or trash.

## 5) Motivation Plan:

a) The General Contractor will conduct a pre-award meeting for subcontractors. Subcontractors under consideration will be required to attend the meeting to review project goals and requirements with the project team. Attendance will be a prerequisite for award of subcontracts. This document will be an attachment to every sub-contract. Copies of the attachment will be posted prominently at the jobsite.

# 6) Expected Project Waste, Disposal, and Handling:

The following chart identifies waste materials expected on this project, their expected disposal methods and handling procedures. New items may be added as needed.

Material	Quantity (Weight)	Disposal Method	Handling Procedures
Land clearing debris		Keep separate for reuse and/or wood sale. Suitable materials may be delivered to a composting site. Separate topsoil and rock for future landscaping use.	Keep separated in designated areas on- site.
Clean dimensional wood and palette wood		Keep separate for reuse by on-site construction or by site employees for either heating stoves or reuse in home projects. May be offered to public. Suitable materials may be delivered to a composting site.	Keep separated in designated areas on- site.
Plywood, OSB, particle board		Reuse on-site when possible, landfill or recycle off-site	Keep separated in designated areas on- site. Place in "Trash" container as necessary
Painted or treated wood		Reuse, off-site recycle, landfill.	Keep separated in designated areas on- site. Place in "Trash" container as necessary
Concrete		Recycle when possible	Keep separated in designated areas on- site.

Concrete Masonry Units	Keep separate for re-	Keep separated in
concrete matering emits	use by on- site	designated areas on-
	construction or	site.
	by site employees.	Site.
Metals	Recycle off-site when	Keep separated in
	possible. Separate	designated areas on-
	copper wire when	site. Place in
	possible.	"Metals"
	possible.	container.
Gypsum drywall	Recycle with	Keep scraps separate
(unpainted)	supplier or re-use	for recycling – stack
	on site when	on pallets
	possible.	in provided on- site.
Paint	Reuse on-site;	Keep separated in
	donate to Buildin g	designated areas on-
	Materials Thrift	site.
	Store or Habita t for	
	Humanity Restore.	
Insulation	Reuse, landfill.	Place in "Trash"
		container
		as necessary.
Flooring	Reuse, landfill.	Place in "Trash"
		container
		as necessary.
Carpet and pad	Reuse or recycle with	Place in "Trash"
	carpet manufacturer	container
Glass	Class Battlast manuals	as necessary.
Glass	Glass Bottles: recycle locally.	Keep separated in designated areas on-
	locally.	site.
Plastics	Plastic Bottles:	Keep separated in
	recycle locally; be	designated areas on-
	aware of plastics	site.
	that are	Site.
	acceptable to	
	recycle	
	facility.	
Cardboard	Recycle locally.	Keep separated in
		designated areas on-
		site.
Paper and Newsprint	Recycle locally.	Keep separated in
		designated areas on-
		site.
Other		

## HAND AND PORTABLE POWER TOOLS PLAN

**Applicability.** This Hand and Portable Power Tools Plan (Plan) applies to any employer in general industry and construction workplaces where its employees use hand and portable power tools. The Plan may be used to comply with the following federal Occupational Safety and Health Administration (OSHA) workplace safety and health rules:

- 29 CFR 1910.241 to 1910.244
- 29 CFR 1910.335(a)(2) (requires employees working near exposed conductors or circuit parts to use insulated tools or handling equipment)
- 29 CFR 1926.300 to 1926.307 (only the sections that cover hand-held or portable tools)

There are no federal OSHA requirements to have a formal written hand and portable power tool safety plan. However, OSHA rules state that each employer is responsible for the safe condition of portable power tools and other hand-held equipment used by employees, including tools and equipment furnished by employees. This Plan may be used to document compliance with these OSHA rules.

**Types of tools covered.** The OSHA hand and portable power tool rules apply to all hand-held tools and equipment with point of operation hazards which may inflict injury on the operator.

They apply to hand tools such as knives, axes, shovels, hammers, chisels, and even paper cutters in an office, and pertain primarily to their physical condition such as broken handles, mushroomed heads, or dull edges that may cause an injury to the user. Although guards on these types of tools may not be feasible, certain other personal safety equipment such as foot, hand, and eye protection may be necessary to protect the operator from injuries such as cuts and flying chips or particles.

The rules also apply to many hand-held or portable power tools (including electric, pneumatic, hydraulic, powder-actuated or explosive, and compressed air tools), lawnmowers, and jacks.

**Plan elements.** This Plan will help you identify and implement safety procedures to protect employees from the hazards of hand and portable power tools and document compliance with regulatory requirements. Plan elements include:

- Hazard assessment procedures
- Safety practices
- Personal protective equipment (PPE)
- Safety switches
- Requirements for specialized hand and power tools
- Accident investigation procedures
- Contractor requirements

- Employee training
- Recordkeeping

**Scope:** This Plan covers site-specific practices and requirements for hand and portable power tool operation and maintenance.

**Policy:** LLR Construction will protect its employees from hazards related to hand and portable power tools and equipment through engineering controls, tool safeguards, communication of hazards and solutions, personal protective equipment, and training.

## Plan Administrator. The Plan Administrator will:

- Read and understand instructional documents provided by the manufacturer before use of any tool
- Provide authorization for employees to use tools and maintain records of authorized employees.
- Provide additional on-the-job training if the employee is not thoroughly familiar with the equipment and/or written procedures.
- Provide safe hand and power tool equipment to employees.
- Remove defective hand and power tools from service.
- Maintain inspection records of hand and power tools.

The Administrator may designate other employees, including managers and supervisors, to implement and enforce the provisions of this Plan.

**Employees.** All employees who use hand and portable power tools will:

- Read and understand instructional documents provided by the manufacturer for the hand and power tool prior to use.
- Recognize the conditions of work that require hand and power tool inspection.
- Understand and follow the hand and power tool safety procedures in this Plan.
- Not tamper with or remove a safety guard.
- Stop using damaged or defective hand and power tools and report such problems to a supervisor.

## **Plan Review and Update**

The hand and power tool procedures and employee authorizations will be reviewed annually, and are reviewed and updated whenever:

- New types of electrical systems or equipment for powering portable power tools are introduced into the workplace.
- Evaluations of workplace hazards, injuries, and near-misses demonstrate that the current Plan is outdated or not effective.
- Regulatory or applicable national consensus standards change that require this Plan to be updated.

## DEFINITIONS

*Hand tool* means a tool that is nonpowered or operates only through physical exertion by hand and includes anything from axes to wrenches and paper-cutting boards in offices.

*Point of operation* means the area around a tool where work is actually performed on the material being processed, and the operation exposes an employee or employees to injury.

*Portable power tool* means a mounted or portable tool that requires a power source to operate, such as electric, pneumatic, liquid fuel, hydraulic, explosive-actuated, and powder-actuated device or power supply. Examples of regulated portable power tools are portable abrasive wheels and grinders, lawn mowers, powered drills, portable circular saws, portable belt sanding machines, explosive-actuated fastening tools, jacks, and abrasive blast cleaning nozzles.

## HAZARD ASSESSMENT

The Administrator or designee will ensure that a hazard assessment is conducted in each work area where hand and portable power tools are or may be used. The assessment will identify sources of hazards that could expose employees to flying objects, shock or electrocution, sparks, punctures, cuts, and crushing forces. For example, sparks produced by iron and steel hand tools can be a dangerous ignition source around flammable substances.

Each hazard assessment will identify hazards, recommend controls, and provide guidance on appropriate personal protective equipment (PPE) selections when a hazard control is not feasible or satisfactory. Employees using hand and power tools and exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dust, fumes, mists vapors, or gases shall be provided with particular PPE necessary to protect them from the hazard.

#### **Hearing Protection**

If it is determined that any employees are exposed to noise from portable power tools at or in excess of an action level of 85 decibels (dB) for an 8-hour day, then the Administrator or designee will implement a hearing conservation program for exposed employees.

## GENERAL TOOL SAFETY PRACTICES

## **Condition of Tools**

All hand tool and portable power tools and similar equipment, whether furnished by the employer or the employee, will be maintained in a safe condition. Tools will be stored in appropriate storage areas when not in use.

## **Electric-Powered Tools**

Electric power tools will be either three-wire grounded or double-insulated and listed by Underwriters' Laboratories or another recognized listing agency.

## Hand Tool Safe Practices

- Floors will be kept as clean and dry as possible to prevent accidental slips with or around dangerous hand tools.
- Saw blades, knives, and other sharp tools will be directed away from aisle areas and other employees working in close proximity.
- Knives and scissors will be kept sharp; dull tools can be more hazardous than sharp ones.
- Spark-resistant tools made from brass, plastic, aluminum, or wood will be used around flammable substances.

# **Power Tool Safe Practices**

To prevent hazards associated with the use of power tools, employees will obey the following general precautions:

- Never carry a tool by the cord or hose.
- Never yank the cord or the hose to disconnect it from the receptacle.
- Keep cords and hoses away from heat, oil, and sharp edges.
- Disconnect tools when not using them, before servicing and cleaning them, and when changing accessories such as blades, bits, and cutters.
- Keep all people not involved with the work at a safe distance from the work area.
- Secure work with clamps or a vise where appropriate, freeing both hands to operate the tool.
- Avoid accidental starting; do not hold fingers on the switch button while carrying a plugged-in tool.
- Maintain tools with care; keep them sharp and clean for best performance.
- Follow instructions in the user's manual for the tool when lubricating and changing accessories.
- Be sure to keep good footing and maintain good balance when operating power tools.
- Do not wear loose clothing, ties, or jewelry when operating portable power tools; such items can become caught in moving parts.
- Remove all damaged or defective portable electric tools from use and tag them: "Do Not Use."
- Always plug cord-connected, hand-held electric tools into ground-fault circuit interrupter (GFCI)-protected receptacles or in compliance with the facility's assured electrical grounding conductor program.

## **Guarding Portable Power Tools**

All power tools designed with guards will be equipped with such guards when in use. All belts, gears, shafts, sprockets, drums, spindles, fly wheels, chains, pulleys, or other reciprocating, rotating, or moving parts of tools will be guarded if those parts may expose to contact by employees or otherwise create a hazard. Methods of guarding will prevent injuries from points of rotating parts, ingoing nip points, and flying chips and sparks.

Safety input and approval from the Administrator or designee will be obtained when manufacturer recommendations for guarding a specific power tool are not available or cannot be implemented.

# Safe Work Practices with Guards

Following are general safe work practices when working with power tools with guards:

- Guards will not be removed unless the power tool is unplugged or locked out from the power source.
- Notify a supervisor immediately when any unguarded moving parts or dangerous points of operation are observed. Stop work and shut down the tool until the condition is corrected.
- Operate equipment only when the proper tool guards are in place.
- Do not use unauthorized or damaged guards.
- Never leave tools unattended with parts still moving; even after the machine is turned off, some parts may still be moving.
- Never remove or bypass guards.
- Maintain good housekeeping practices by keeping the work area free of debris or other items that can get caught in tools or power equipment.
- Operate power tools only when all guards are in place and properly attached according to the manufacturer's recommendations, and functioning properly.
- Wear proper eye and face protection while operating power tools.
- If a guard is damaged, bypassed, or missing, shut down the tool until the problem is corrected.
- Never wear loose clothing or jewelry while operating power tools.

## PPE

Employees using hand and power tools exposed to the hazard of falling, flying, abrasive and splashing objects, or exposed to flying dusts, fumes or mists, vapors or gases will be fitted with the particular PPE necessary to protect them from the specific hazard. Safety eyewear, hard hats, gloves, and appropriate safety shoes are required on all construction sites.

## Safety Switches

All hand-held power tools will be fitted with any one of the following safety switch methods as appropriate for the particular tool:

- A momentary contact "on-off" control
- A lock-on control provided that turnoff can be accomplished by a single motion of the same finger or fingers that turn it on

• A pressure switch that constant pressure is needed to run and will shut off when the pressure is released, such as required for hand-held gasoline-powered chain saws

## SPECIFIC HAND AND PORTABLE POWER TOOLS

The Administrator or designee will ensure that employees who perform work using hand and portable power tools are provided with tools that are safe, and that employees will inspect the tool prior to use and use it correctly.

## Hand Tools

## Wrenches

Wrenches including adjustable, pipe, box-end, and socket-style wrenches will not be used when the jaws or socket are stripped or sprung in such a way that slippage occurs.

## Impact Tools

Impact tools such as drill pins or punches, wedges, and chisels will be kept free of mushroomed heads.

## Wooden Handles of Tools

Wooden-handled tools will be kept free of cracks and splinters and will be kept tightly attached to the working end of the tool.

## **Portable Power Tools**

## Portable Circular Saws

All cracked saws will be removed from service.

**Guards.** All portable, power-driven circular saws that have a blade diameter greater than 2 inches (in.) will be equipped with guards above and below the base plate or shoe. The upper guard will cover the saw to the depth of the teeth, except for the minimum arc required to permit the base to be tilted for bevel cuts. The lower guard will cover the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work. When the tool is withdrawn from the work, the lower guard will automatically and instantly return to covering position.

**Switches.** Circular saws will be equipped with a constant pressure switch or control that will shut off the power when the pressure is released.

## Portable Belt Sanding Machines

**Guards.** Belt sanding machines will be provided with guards at each nip point where the sanding belt runs onto a pulley. These guards will effectively prevent the hands or fingers of the operator from coming in contact with the nip points. The unused run of the sanding belt will be guarded against accidental contact.

## Portable Powered Abrasive Wheels

**Inspection.** Before an abrasive wheel is mounted, it will be inspected closely and sound- or ring-tested to be sure that it is free from cracks or defects. To test, wheels should be tapped gently with a light non-metallic instrument. If they sound cracked or dead, they could fly apart in operation and, so, must not be used. A sound and undamaged wheel will give a clear metallic tone or "ring."

**Mounting.** The wheel must fit freely on the spindle to prevent it from cracking. The spindle nut must be tightened enough to hold the wheel in place without distorting the flange. The manufacturer's recommendations for mounting and use of the wheel must be followed. Care must be taken to assure that the spindle wheel will not exceed the abrasive wheel specifications.

Due to the possibility of a wheel disintegrating (exploding) during start-up, the employee must never stand directly in front of the wheel as it accelerates to full operating speed.

**Guards.** Abrasive wheels will be used only on machine provided with safety guards. A safety guard will cover the spindle end, nut, and flange projections. The safety guard will be mounted so as to maintain proper alignment with the wheel, and the strength of the fastenings will exceed the strength of the guard. Safety guards on all operations where the work provides a suitable measure of protection to the operator may be so constructed that the spindle end, nut, and outer flange are exposed. Where the nature of the work is such as to entirely cover the side of the wheel, the side covers of the guard may be omitted.

Portable abrasive wheels used for internal grinding will be provided with safety flanges (protection flanges) only with wheels designed to fit the flanges. Only safety flanges of a type and design and properly assembled so as to ensure that the pieces of the wheel will be retained in case of accidental breakage will be used. **Note:** This requirement for internal grinding wheels does not apply when wheels 2 in. or less in diameter, which are securely mounted on the end of a steel mandrel, are used and when the wheel is entirely within the work being ground while in use.

**Exceptions to abrasive wheel requirements.** The requirements for abrasive wheels do not apply to natural sandstone wheels, and metal, wooden, cloth, or paper discs having a layer of abrasive on the surface.

#### Cup Wheels

Cup wheels (Types 6 and 11) will be protected by safety guards or special "revolving cup guards" which mount behind the wheel and turn with it. They will be made of steel or other material with adequate strength and will enclose the wheel sides upward from the back for one-third of the wheel thickness.

#### **Portable Power Grinders**

When using a powered grinder, employees must:

- Always use eye protection.
- Turn off the power when not in use.
- Never clamp a hand-held grinder in a vise.

**Guards.** Portable grinding tools will be equipped with safety guards to protect workers from the moving wheel surface and from flying fragments in case of breakage. Safety guards used on right angle head or vertical portable grinders will have a maximum exposure angle of 180 degrees (°) and the guard will be so located so as to be between the operator and the wheel during use. Adjustment of the guard will be such that pieces of an accidentally broken wheel will be deflected away from the operator.

The maximum angular exposure of the grinding wheel periphery and sides for safety guards used on other portable grinding machines will not exceed 180° and the top half of the wheel will be enclosed at all times.

## **Electric Power-Operated Tools**

Portable electric power-operated tools will be of the approved double-insulated type and used with an approved grounding device such as a GFI (Ground Fault Indicator) to prevent the unlikely event of an electrical shock. Such tools will meet the requirements of the federal electrical safety rules (29 CFR 1910.301 to 1910.335).

**Safe work practices.** Employees will implement the following safe work practices when handling and operating electric power-operated tools:

- Never use electrical cords for hoisting or lowering tools.
- Keep cords and hoses away from heat, oil, and sharp edges.
- Operate electrical tools only within their design limitations.
- Wear gloves and safety footwear as appropriate during use of electric tools.
- When not in use, store electrical tools in a dry place.
- Do not use electrical tools in damp or wet locations without authorization.
- Ensure work areas are well-lighted.

## Pneumatic-Powered Tools and Hoses

Pneumatic tools are powered by compressed air and include chippers, drills, hammers, and sanders.

**Retainer.** Pneumatic power tools will be secured to the hose or whip by some positive means such as a tool retainer to prevent the tool from becoming accidentally disconnected. Safety clips or retainers will be securely installed and maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled.

**PPE.** Eye protection is required and face protection is recommended for employees working with pneumatic tools. Use appropriate hearing protection when working with noisy tools such as jackhammers.

**Barrier protection.** Screens must be set up to protect nearby workers from being struck by flying fragments around chippers, riveting guns, staplers, or air drills. **Air pressure.** The safe operating pressure stated by the manufacturer will not be exceeded.

Supplied compressed air will not be used for cleaning purposes except when reduced to 30 pounds per square in. (psi) and then only with effective chip guarding and when proper PPE is used.

**Hoses.** Pneumatic powered tools will be secured to the hose or connection by a positive means to prevent them from being accidentally expelled. A short wire or positive locking device attaching the air hose to the tool will serve as an added safeguard. Hoses will not be used for hoisting or lowering. All hoses exceeding ½ in. inside diameter will have a safety device to reduce pressure should the hose fail. **Nailers, staplers, and similar tools.** All pneumatically driven nailers, staplers, and other similar tools provided with automatic fastener feeds which operate at more than 100 psi pressure to the tool will have a safety device on the muzzle end to prevent the tool from ejecting fasteners unless the muzzle is in contact with the work surface. A safety clip or retainer must be installed to prevent attachments, such as chisels on a chipping hammer, from being unintentionally shot from the barrel.

**Compressed air guns.** Compressed air guns must never be pointed toward anyone. Users must never "dead-end" the gun against themselves or anyone else.

## Hydraulic Power Tools

The fluid used in hydraulic powered tools will be fire-resistant fluids and must retain its operating characteristics at the most extreme temperatures to which it will be exposed. The manufacturer's safe operating pressures for hoses, valves, pipes, filters, and other fittings will not be exceeded.

#### Fuel-Powered Tools

All fuel-powered tools will be stopped during refueling, servicing, or maintenance. Fuel will be transported, handled, and stored in accordance with USEPA and USDOT rules and procedures.

When fuel-powered tools are used in enclosed spaces, the applicable requirements for toxic gas monitoring and use of PPE will be applied.

## **Powder-Actuated Tools**

Powder-actuated tools are also known as "explosive-actuated." Such tools are actuated by explosives or any similar means, and propel a stud, pin, fastener, or other object for the purpose of affixing it by penetration to any other object. Powder-actuated tools will be designed in accordance with federal regulatory requirements (see 29 CFR 1910.243) and operated according to facility and manufacturer's instructions.

**Employee training.** Only employees who have been trained in the safe operation of the particular powder-actuated tool in use will be allowed to operate a powder-

actuated tool.

**Testing.** The tool will be tested each day before loading to see that safety devices are in proper working condition. The method of testing will be in accordance with manufacturer's recommended procedures.

**Inspection.** Before using a tool, the operator will inspect it to determine to his or her satisfaction that it is clean, that all moving parts operate freely, and that the barrel is free from obstructions. The tool will be inspected at regular intervals and be repaired in accordance with the manufacturer's specifications.

**Safe work practices.** Employees will obey the following safe work practices when operating powder-actuated tools:

- Any tool found not in proper working order, or which develops a defect during use, will be immediately removed from service and not used until properly repaired by an authorized provider.
- Tools will not be loaded until just prior to the intended firing time. At no time, loaded or unloaded, are the tools to be pointed at any employees.
- Hands will be kept clear of the open barrel.
- Loaded tools will not be left unattended.
- Tools will not be used in an explosive or flammable environment.
- In case of a misfire, the operator will hold the tool in the operating position for at least 30 seconds and then try to operate the tool a second time. The operator will wait another 30 seconds, holding the tool in the operating position, then proceed to remove the explosive load in strict accordance with the manufacturer's instructions.
- A tool will never be left unattended in a place where it would be available to unauthorized persons.
- Fasteners will not be driven into very hard or brittle materials including, but not limited to, cast iron, glazed tile, surface-hardened steel, glass block, live rock, face brick, or hollow tile.
- Driving into materials easily penetrated will be avoided unless such materials are backed by a substance that will prevent the pin or fastener from passing completely through and creating a flying-missile hazard on the other side.
- Fasteners will not be driven directly into materials such as brick or concrete closer than 3 in. from the unsupported edge or corner or into steel surfaces closer than ½ in. from the unsupported edge or corner, unless a special guard, fixture, or jig is used. (Exception: Low-velocity tools may drive no closer than 2 in. from an edge in concrete or ¼ in. in steel).
- When fastening other materials, such as a 2- by 4-in. wood section to a concrete surface, it is permissible to drive a fastener of no greater than 7/32-in. shank diameter not closer than 2 in. from the unsupported edge or corner of the work surface.
- Fasteners will not be driven through existing holes unless a positive guide is used to secure accurate alignment.
- No fastener will be driven into a spalled area caused by an unsatisfactory fastening.

• Driving into materials easily penetrated will be avoided unless such materials are backed by a substance that will prevent the pin or fastener from passing completely through and creating a flying missile hazard on the other side.

**Protective systems and PPE.** All tools will be used with the correct shield, guard, or attachment recommended by the manufacturer. Appropriate PPE will be used when operating powder-actuated tools. Eye protection will be required at all times. Head and face protection will be used as required by working conditions.

## Jacks

A jack is an appliance for lifting and lowering or moving horizontally a load by application of a pushing force. Jacks may be lever and ratchet, screw, and hydraulic.

The manufacturer's rated capacity for the jack will be legibly marked on all jacks and will not be exceeded. All jacks will have a positive stop to prevent and stop over-travel.

When providing a firm foundation, the jack base, as well as the cap, will be blocked or cribbed to prevent slippage. Where there is a possibility of slippage of the metal cap of the jack, a wood block shall be placed between the cap and the load.

**Inspections.** Jacks will be maintained according to the manufacturer's recommendations and inspected at least every 6 months and prior to use. For jacks subjected to abusive conditions such as freezing, load shock, or extreme heat, the jack will be examined for possible defects.

**Defective jack.** Any jack found damaged or defective will be tagged accordingly and not be used until repaired by a person qualified to perform such repairs.

# ACCIDENT INVESTIGATION

All incidents that result in injury to workers, as well as near misses, regardless of their nature, will be reported and investigated. Investigations will be conducted by LLR construction's safety Manager or other authorized person as soon after an incident as possible to identify the cause and means of prevention to eliminate the risk of reoccurrence.

In the event of an incident that results in serious injury, this Plan will be reevaluated by the Administrator or designee to determine if additional practices, procedures, or training is necessary to prevent similar future incidents.

## CONTRACTORS

Contractors must submit, as part of the contract-required Plan, a hand and power tool program that meets the provisions of this Plan.

Onsite service contractors may train their own employees in specific company policies, procedures, and equipment, as needed, to ensure the safety of their employees. They must maintain authorization records that meet the requirements of this Plan.

## TRAINING

Only employees who are trained and authorized will perform work using hand and power tools.

Construction contractors are permitted to show written records of equivalent training. The Administrator or designee will provide specific authorization after the employee satisfies the training requirements of this Plan or attachments.

## **Training Program Requirements**

Training of employees that use hand and power tools must include the safe operation, use, and care of the tool(s) and implements. The employee must be trained to be thoroughly familiar with the equipment (within the context of his/her job function) and with the tool manufacturer's procedures.

Each employee will be provided additional on-the-job training if the employee is not thoroughly familiar with the tools and/or written procedures.

## **Refresher Training**

Hand and power tool refresher training is required when:

- An authorized employee's job changes or if he or she is reassigned.
- A new hand or power tool is introduced to the work area for use.
- New handling procedures are implemented.
- An employee demonstrates inadequate knowledge of hand and power tool procedures or policy.

## RECORDKEEPING

Copies of manufacturer specifications and manuals, ANSI consensus standards, and applicable regulations will be kept electronically so there accessible anywhere at anytime .

The Administrator or designee will maintain records of authorized employees and the type of on-the-job training, if any, that was given.

## HAZARD COMMUNICATION

A written hazard communication program shall be developed, implemented, and maintained at each workplace that describes how labels & other forms of warning, safety data sheets, & employee information will be met. This program provides information to LLR Construction, LLC employees concerning chemical products to which they may be exposed as follows:

- 1. Maintain a list of all hazardous chemicals used in the LLR Construction's work.
- 2. Make available through electronic means Safety Data Sheets (SDS) for all hazardous chemicals used.
- 3. Provide hazard communication training to employees on hazardous chemicals they may be exposed to.
- 4. All sub-contractors will be required to meet LLR Construction's Globally Harmonized System (GHS) requirements.

## LISTING OF CHEMICAL PRODUCTS:

- 1. LLR Construction shall maintain a list of all chemical products used in the LLR Construction's work. All sub-contractors must give LLR Construction a copy of their chemical list before starting work.
- 2. Potential health exposures and hazards related to a particular chemical must beevaluated prior to use, and workers informed.
- 3. LLR Construction will obtain SDS from all chemical suppliers, and keep a copy of this program, the chemical list and the SDS will be made available electronically for all employees.

## LABELS:

- 1. All chemical products received at LLR Construction shall be properly labeled in English and any other languages needed. If labels are not provided they shall not be received, or the supplier shall be contacted to have specific labels sent. All chemical labels shall provide the following information:
  - Identity of the chemical or substance
  - Hazard warnings
  - Name and address of the manufacturer
- 2. Labels must not be removed and are to be replaced if illegible.
- 3. Signs or placards shall be posted in chemical storage areas to identify all materials and potential hazards.

# HEALTH, SAFETY AND EMERGENCY PROCEDURES:

To ensure that required information is available and accessible during an emergency, such as a chemical spill, the following information shall be made available to local, State or Federal authorities upon request:

- 1. SDS
- 2. Location of all stored chemicals if the amount is equal to 30 gallons or pounds or more specific spill control/clean-up procedures as per the SDS.
- 3. Health hazards, including symptoms of exposure or recognizable medical conditions
- 4. Environmental impact to air, soil or water which may result from the of specificquantities of a chemical substance

# TRAINING:

No employee may be exposed to or handle chemicals on a work site unless properly trained. Employees will be trained initially upon hire and then as needed when new chemicals are added or procedures change. The training will be done by LLR Construction's Safety Coordinator or an outside safety consultant. The training program will provide the following information:

- 1. Requirements of the Globally Harmonized System.
- 2. Locations of all chemical products used during day-to-day operations.
- 3. Locations where hazardous chemicals will be used.
- 4. Location and availability of Safety Data Sheets (SDS) and chemical inventory list to include those of subcontractors.
- 5. Interpretation of SDS data and what is required to be on a SDS and chemical labeling, physical and health hazards of the chemicals.
- 6. Observation techniques to detect the presence of a chemical spill or accidental releaseinto the work area as a SDS specifies.
- 7. Methodologies to enable employees to protect themselves, such as work procedures, emergency procedures and personal protective equipment as a SDS specifies.
- 8. Emergency response procedures.
- 9. Health hazards of the chemicals
- 10. Measures employees are to take to protect themselves from the chemicals.
- 11. The details of the program.

# SAFETY DATA SHEETS (SDS)

SDS'S must be readily available to all employees and maintain the following areas of information:

#### **Product Information**

• Manufacturers name and address and points of contact<u>Hazardous Ingredients</u>

- Trade name
- Chemical name
- Exposure limits
- Physical data,
- Vapor pressure, specific gravity, odors etc.

#### <u>Fire Data</u>

- Any special fire hazards and fire fighting procedures
- i.e. Flash point, ignition temperature, lower and upper explosive limits

#### <u>Health Hazards</u>

- Primary routes of exposure
- Signs and symptoms of overexposure
- Emergency first aid

#### <u>Material Storage</u>

- Reactivity
- Improper storage conditions
- Conditions to avoid
- Spills and leakage procedures

#### Handling Requirements

- Required PPE
- \*Sometimes may have to review hazardous ingredient section to make sure you have proper PPE for product.

## OCCUPATIONAL NOISE EXPOSURE

This Instruction:

1. Applies to all personnel.

2. With the exception of requirements for reference and termination audiograms, does not apply to personnel defined as deaf in ANSI Standard S3.201973 (R1986) (reference (c)).

## **B. DEFINITIONS**

Terms used in this Instruction are defined below.

## **C. POLICY**

It is our policy to protect all personnel from hearing loss resulting from occupational noise exposure through a continuing, effective, and comprehensive hearing conservation program.

## **D. RESPONSIBILITIES**

1. LLR Construction shall:

a. Provide policy guidance and coordination on hearing conservation matters.

b. Serve as the principal point of contact (POC) with Federal and State regulatory agencies that control occupational exposure to hazardous noise.

2. LLR Construction shall establish and maintain hearing conservation programs to implement this Instruction. Such programs shall encompass the minimum requirements set forth in section E. and shall include provisions to periodically evaluate the effectiveness of their hearing conservation programs.

## **E. PROCEDURES**

**1. Written plan:** LLR Construction, LLC shall prepare a written plan for the implementation of a comprehensive hearing conservation program. Such plans shall address occupational noise exposure, monitoring, audiometric testing requirements, hearing protectors, information and training, record keeping, noise exposure computation, methods for estimating the adequacy of hearing protector attenuation, audiometric measuring instruments, audiometric test rooms, and acoustic calibration of audiometers. **2. Program implementation:** Hearing conservation programs shall be implemented, when personnel are exposed to the following:

a. Steady noise that has an 8hour time weighted average (TWA) noise level of 85 A weighted decibels (dBA) or above. When appropriate, implementation may also be started regardless of the duration of noise exposure to 85 dBA, or greater. Those criteria apply only to energy in the audible range, up to 16,000 Hertz (Hz).

b. Impulse noise of 140 peak decibels (dBA), or greater.

#### 3. Noise measurements and analysis

a. Sound pressure levels shall be measured in all potentially noise hazardous work areas at least once and within 30 days of any change in operations effecting noise levels.

b. A TWA noise level shall be established for all employees working in noise hazardous areas at least once and within 30 days of any change in operations effecting noise levels.

c. A current inventory of all noise hazardous areas and operations shall be maintained to include, minimally, TWAs, names of employees at risk, and the types of control measures used.

d. Only qualified employees shall conduct noise surveys.

e. Instrumentation used for those surveys must meet or exceed requirements in ANSI Standard S1.41983. Those instruments must be calibrated and the calibration checked with an acoustical calibrator, accurate to within plus or minus 1 decibel (dB), before and after each day's measurements and must have been subjected to a complete electro acoustical calibration no more than 1 year before the survey.

f. Minimally, steady noise measurements shall be made using "A" weighting, with the meter response set to "slow."

(1) When personal noise dosimeters are used for worker exposure measurements, they must integrate all sound levels from 80 dB to 130 dB using a minimum of the OSHA 5 dB exchange rate. Components may use more stringent criteria, i.e. integration of a broader range or exchange rates less than 5 dB.

(2) Area monitoring may be used to determine worker exposure. In circumstances such as high worker mobility,

significant variations in noise levels, or a significant component of impulse noise, representative personal sampling shall be conducted.

g. Worker noise exposure shall be computed, without regard to any attenuation provided by hearing protectors.

h. Impulse noise measurements should be made using calibrated sound level meters that meet or exceed specifications in ANSI Standard S1.4 1983, have a peak hold circuit and have a rise time not exceeding 35 microseconds and are capable of measuring peak sound pressure levels in excess of 140 db.

i. If sound level meters meeting the requirements, above, are not available, a combination of calibrated instruments having a peak hold circuit and with a rise time not exceeding 35 microseconds and capable of measuring peak sound pressure levels in excess of 140 dB may be used for impulse noise measurements.

j. When information indicates that employee exposure may equal/exceed the 8 hr time-weighted avg. of 85 decibels, a monitoring program shall be implemented to identify employees to be included in the hearing conservation program.

#### 4. Safety signs and labels

a. All hazardous noise areas must be clearly identified by signs located at their entrances or boundaries.

b. Each tool or piece of equipment producing hazardous noise shall be conspicuously marked to alert personnel, except when an entire space is designated a hazardous noise area, and the equipment is stationary. Professional judgment and discretion should be exercised when labeling tools and equipment.

c. Signs and decals that describe (verbally or with other visual symbols) the hazard and the protective measures to be taken shall be used to designate hazardous noise areas and equipment; e.g., "DANGER," "Hazardous Noise," "Hearing Protection Required When in Operation."

#### 5. Noise abatement

a. Engineering controls shall be the primary means of reducing or eliminating employee exposure to hazardous noise. All practical design approaches to reduce noise levels below hazardous levels by engineering principles shall be explored. Where engineering controls are undertaken, the design objective will be to reduce steady state levels to below 85 dBA without regard to time and to reduce impulse noise levels to below 140 dBP.

b. New equipment being considered for purchase shall have the lowest noise emission levels that are technologically and economically feasible and compatible with performance and environmental requirements. The provisions of Section 15 of the "Noise Control Act of 1972", Pub. L. 92574, (reference (g)) applies.

c. Acoustics shall be included in specifications for all new facilities and substantial modification projects. The objective shall be to ensure, if feasible, a steady state level of 84 dBA, or less, at all employee locations during normal operation.

#### 6. Personal hearing Protectors

a. The use of personal hearing protectors to limit noise exposure is considered to be an interim protective measure, while engineering control methods are being explored. Such devices shall constitute a permanent measure, only if engineering controls are not technologically or operationally feasible.

b. LLR Construction shall issue personal hearing protectors free to all employees who work in designated hazardous noise areas.

c. The hearing protectors provided shall be capable of attenuating worker noise exposure below an 8hour TWA of 85 dBA. If hearing protectors do not provide sufficient attenuation, administrative control of exposure shall be necessary.

d. Employees shall be free to choose personal hearing protectors from among those available unless medically contraindicated or inappropriate for a particular hazardous noise exposure. Hearing aids and noise muffs with built-in radios that are designed for recreational listening must not be used in place of, or with, approved hearing protectors.

e. Preformed earplugs shall be fitted and issued only under supervision of personnel who have been specifically trained to fit earplugs.

f. Employees shall receive adequate and effective training in care and use of personal hearing protectors.

g. Employees working in or entering designated hazardous shall

carry hearing protectors at all times. When noise sources are operating, employees shall wear their hearing protection devices regardless of exposure time.

h. LLR Construction shall assess the adequacy of hearing protectors when used in very high noise environments or for extended exposure periods.

i. All levels of supervision and management, by personal example and precept, shall enforce the use of hearing protectors. For noncompliance, management shall consider disciplinary action as a corrective measure against the offender and the supervisor.

#### 7. Education

All employees who routinely work in designated hazardous noise areas shall receive annual training on the following: effects of noise on hearing, the purpose of hearing protection the advantages, disadvantages, and attenuation of various:

- a. effects of noise on hearing.
- b. the purpose of hearing protection
- c. the advantages, disadvantages, and attenuation of various hearing protectors
- d. the purpose of audiometric testing
- e. explanation of the test procedures.

Also, they shall be encouraged to use hearing protectors when they are exposed to hazardous noise while not at work.

#### 8. Audiometric testing

a. All employees routinely exposed to hazardous noise shall be placed in a hearing-testing program. That program shall include pre-placement, periodic (at least once, annually), and termination audiograms. Employees who infrequently or incidentally enter designated hazardous noise areas need not participate in the audiometric testing program.

b. All audiometric testing shall:

(1) Be performed by a licensed or certified audiologist, otolaryngologist, or other physician; or by a technician who is certified by the Council of Accreditation in Occupational Hearing Conservation. A technician who performs audiometric tests shall be responsible to an audiologist, an otolaryngologist, or a physician.

(2) Transpire in a testing environment with background octave band pressure levels not greater than the following:

500 Hz 1000 Hz 2000 Hz 4000 Hz 8000 Hz

30 dB 30 dB 47 dB 57 dB 62 dB

The test environment shall be resurveyed annually using equipment conforming at least to the Type 2 requirements of ANSI Standard S1.41983 and the Order II requirements of ANSI Standard S1.111986 (references (f) and (i)).

(3) Include pure tone, air conduction, hearing threshold examinations of each ear at the test frequencies of at least 500, 1000, 2000, 3000, 4000, and 6000 Hz.

(4) Be accomplished with audiometers that meet the specifications of ANSI Standard S3.61989 (reference (j)).

(5) Occur on audiometers calibrated per specifications in reference (j).

c. Every effort should be made to conduct a reference audiogram on workers before they are assigned to duties involving hazardous noise exposure. In no case shall a baseline audiogram be conducted more than 1 month from the date of a worker's initial exposure to hazardous noise.

Regardless of the time of initiation, the first valid hearing test administered is the reference audiogram and shall be preceded by at least 14 hours without exposure to workplace noise. The worker shall be cautioned to avoid high levels of non- occupational noise exposure during a 14hour period preceding the examination.

d. Employees who continue to work in designated hazardous noise areas and/or are exposed to noise equal to or greater than 85dBA, 8-hour time- weighted average shall receive annual audiograms.

e. Termination audiogram shall be conducted on each worker about to stop working in designated hazardous noise areas. Employees moving to other jobs involving hazardous noise exposure need not be given a termination audiogram. f. Follow up audiograms shall be conducted when an individual's audiogram shows a threshold shift relative to the original or revised reference audiogram of an average of 10 dB, or more, at 2000, 3000, and 4000 Hz in either ear. The National Institute for Occupational Safety and Health (NIOSH) age corrections may be applied in cases of positive threshold shift (29 CFR 1910.95) (reference (k)). Medical evaluation is required to validate the existence of a permanent noise induced threshold shift and shall be done by an audiologist, otolaryngologist, or physician. Any determination that the noise induced threshold shift is not work related or has not been aggravated by occupational noise exposure shall be made by a physician.

g. If the threshold shift is confirmed as permanent, the individual shall be notified in writing within 21 days of such determination, and the condition entered in the individual's medical record.

The individual shall be refitted with hearing protection, instructed in its care and use, and strongly encouraged to wear the hearing protection.

h. A new reference audiogram shall replace the original reference audiogram, when the medical evaluation confirms the threshold shift noted during the annual audiogram is permanent. The original reference audiogram shall be retained in the patient's medical record. A revised reference audiogram should also be established, when the hearing threshold demonstrated in the annual audiogram indicates significant improvement over the existing reference audiogram.

#### 9. Personnel assignments

a. LLR Construction may require personnel under consideration for entry-level employment, in an occupational specialty that involves routine exposure to hazardous noise, to meet minimum pre-selection hearing level criteria. The LLR Construction may develop minimum pre-selection hearing level criteria and designate applicable occupational specialties.

b. The LLR Construction may establish criteria for permanently excluding personnel with a substantial hearing loss from working in hazardous noise environments. Any exclusion criteria must be applied judiciously to ensure that qualified, trained personnel are not indiscriminately excluded from their career field. Excluding a worker from a career field should be the last resort after repeated attempts to protect the individual's hearing have failed.

#### 10. Access to information, training material, and records

a. LLR Construction shall make available to personnel copies of the Hearing Conservation Program. In addition, the Occupational Health and Safety Administration (OSHA) standard (29 CFR 1910.95) (reference (k)), shall be posted in all industrial noise hazardous areas.

b. On request, the LLR Construction shall provide affected employees with any information type materials on the hearing conservation program that are supplied by the Assistant Secretary of Labor for Occupational Safety and Health.

c. On request, the LLR Construction shall provide personnel, former personnel and representatives designated in writing by the individual employee, with copies of all records pertaining to the audiometric testing and noise exposure to the specific worker.

d. On request, the LLR Construction shall provide representatives of the Assistant Secretary of Labor for Occupational Safety and Health with all records pertaining to the companies hearing conservation program.

#### 11. Records

a. All audiometric testing data shall be maintained for the duration of employment plus 30 years.

b. Results of hearing tests performed for hearing conservation, as well as exposure documentation, shall be a permanent part of an individual's health record.

c. Noise exposure data shall be kept for a minimum of 30 years and recorded or in the equivalent format of automated measurement equipment or health hazard inventory system that contains at least the mandatory data elements.

d. All personnel who routinely work in designated hazardous noise areas shall be identified, and a current roster maintained.

#### 12. EFFECTIVE DATE AND IMPLEMENTATION

This Instruction is effective immediately. Forward one copy of implementing instructions to each department.

## DEFINITIONS

**1. Decibel Aweighted (dBA).** The standard abbreviation for sound levels measured with an instrument set to the Aweighting network. The Aweighting network reduces the contribution of lower frequencies, which are of less concern for hearing conservation.

**2. Decibel (dB).** A unit of measurement of sound pressure level. The sound pressure level, in dB, is equal to 20 times the common logarithm of the ratio of the existing sound pressure to a reference sound pressure of 20 micropascals.

**3. Decibel Peak (dBP).** Standard abbreviation for peak sound level equal to 20 times the common logarithm of the ratio of the highest instantaneous sound pressure to a reference pressure of 20 micropascals. Used in the measurement of impulse noise.

**4. Hazardous Noise.** Exposure to steady state noise equivalent to 85 dBA for 8 hours. Components may define time intensity trading rates as appropriate for their rest cycle conditions using subsection A.1. of enclosure 3. Exposure to impulse noise levels greater than 140 dBP.

**5. Hazardous Noise Area.** Any work area where workers are likely to receive a daily total noise dose in excess of that calculated using subsection B., enclosure 3, or where impulse noise levels exceed 140 dBP. For personnel exposed to appreciable noise levels for periods of 24 hours or more, a daily dose of 100 percent can occur at continuous noise levels as low as 79 dBA.

**6. Hertz (Hz).** A unit of measure of frequency, numerically equal to cycles per second.

**7. Impulse Noise.** A short burst of an acoustic energy consisting of either a single impulse or a series of impulses. The pressure time history of a single impulse includes a rapid rise to a peak pressure, followed by a somewhat slower decay of the pressure envelope to ambient pressure, both occurring within 1 second. When the intervals between impulses are less than 500 milliseconds, the noise is considered continuous, excepting short bursts of automatic weapons fire, which are considered impulse noise.

8. Presbycusis. Hearing loss due to age.

**9. Reference Audiogram.** An audiogram free from auditory fatigue and other transient otologic pathology, against which future audiograms are compared.

**10. Significant Threshold Shift (STS).** The STS is the same as the OSHA standard threshold shift. A STS is present when there is a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more a 2000, 3000 and 4000 Hz in either ear. All employees will be notified in writing of an STS within 21 days of determination. Unless a physician determines that the standard threshold shift is not work related or aggravated by occupational noise exposure, the employer shall ensure that employees already using hearing protectors shall be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary. The employee shall be referred for a clinical audiological evaluation or an otological examination, as appropriate, if additional testing is necessary or if the employer suspects that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors.

#### SAMPLE NOISE EXPOSURE COMPUTATION

**A.** When using a 4 dB power-doubling rate, noise dose may be computed from sound pressure level measurements as follows:

1. When the sound level is constant over the entire work shift, the noise dose, D, in percent, is given by:

D = 100 C/T

where C is the total length of the workday, in hours, and T is the reference duration corresponding to the measured sound level, L, as computed by the equation:

 $T = 16/(2 \exp(L81)/4)$ 

2. When the work shift noise exposure is composed of two or more periods of noise at different levels, the total noise dose over the workday is given by:

D = 100(C1/T1 + C2/T2 ...Cn/Tn)

where Cn indicates the total time of exposure at a specific noise level, and Tn indicates the reference duration for that level as given by the equation:

 $Tn = 16/(2 \exp(L81)/4)$ 

**B.** The TWA may be computed from noise dosimeter readings as follows. The noise dosimeter should be capable of integrating all noise levels from 80130 dBA and using a 5 dB time intensity integration factor or Component exchange rate:

 $TWA = 85 + Q \log (D/100)$ 

where TWA is the 8hour time weighted average sound level; Q is a constant equal to R/log 2; R is the exchange rate per doubling time (not more than 5 dB); and D is the accumulated dose in percent exposure.

**C.** When exposures to steady state noise, including impulse noise below 130 dBP, occur simultaneously with or within the same 24hour period as exposure to impulse noise above 130 dBP, the hazard criteria shall be applied to separately (i.e., the allowable exposure to steady state noise shall not be reduced because of exposure to impulse noise).

#### Introduction

The purpose of the Personal Protective Equipment Policies is to protect the employees of LLR CONSTRUCTION, LLC from exposure to work place hazards and the risk of injury through the use of personal protective equipment (PPE). PPE is not a substitute for more effective control methods and its use will be considered only when other means of protection against hazards are not adequate or feasible. It will be used in conjunction with other controls unless no other means of hazard control exist.

Personal protective equipment will be provided, used, and maintained when it has been determined that its use is required to ensure the safety and health of our employees and that such use will lessen the likelihood of occupational injury and/or illness.

This section addresses general PPE requirements, including eye and face, head, foot and leg, hand and arm, body (torso) protection, and protection from drowning. Separate programs exist for respiratory protection and hearing protection as the need for participation in these programs is established by LLR CONSTRUCTION.

The LLR CONSTRUCTION Personal Protective Equipment Policies includes:

- Responsibilities of supervisors and employees
- Hazard assessment and PPE selection
- Employee training
- Cleaning and Maintenance of PPE

#### Responsibilities

LLR CONSTRUCTION SAFETY OFFICER is responsible for the development, implementation, and administration of LLR CONSTRUCTION'S PPE policies. This involves

- 1. Conducting workplace hazard assessments to determine the presence of hazards which necessitate the use of PPE.
- 2. Selecting and purchasing PPE.
- 3. Reviewing, updating, and conducting PPE hazard assessments whenever
  - a job changes
  - new equipment is used
  - there has been an accident
  - a supervisor or employee requests it
  - or at least every year.
- 4. Maintaining records on PPE assignments and training.
- 5. Providing training, guidance, and assistance to supervisors and employees on the proper use, care, and cleaning of approved PPE.
- 6. Periodically re-evaluating the suitability of previously selected PPE.
- 7. Reviewing, updating, and evaluating the overall effectiveness of PPE use, training, and policies.

#### Supervisors (leads, etc., and/or designated persons)

Supervisors (leads, etc., and/or designated persons) have the primary responsibility for implementing and enforcing PPE use and policies in their work area. This involves

- 1. Providing appropriate PPE and making it available to employees.
- 2. Ensuring that employees are trained on the proper use, care, and cleaning of PPE.

- . Ensuring that PPE training certification and evaluation forms are signed and given to LLR CONSTRUCTION SAFETY OFFICER.
- 4. Ensuring that employees properly use and maintain their PPE, and follow LLR CONSTRUCTION PPE policies and rules.

- 5. Notifying LLR CONSTRUCTION management and the Safety Person when new hazards are introduced or when processes are added or changed.
- 6. Ensuring that defective or damaged PPE is immediately disposed of and replaced.

#### **Employees**

The PPE user is responsible for following the requirements of the PPE policies. This involves

- 1. Properly wearing PPE as required.
- 2. Attending required training sessions.
- 3. Properly caring for, cleaning, maintaining, and inspecting PPE as required.
- 4. Following LLR CONSTRUCTION PPE policies and rules.
- 5. Informing the supervisor of the need to repair or replace PPE.

Employees who repeatedly disregard and do not follow PPE policies and rules will be disciplined under LLR CONSTRUCTON'S Safety Disciplinary Policy.

#### PERSONAL PROTECTIVE EQUIPMENT

#### Procedures

# A. Hazard Assessment for PPE

LLR CONSTRUCTION SAFETY OFFICER, in conjunction with Supervisors, will conduct a walk-through survey of each work area to identify sources of work hazards. Each survey will be documented using the Hazard Assessment Certification Form, which identifies the work area surveyed, the person conducting the survey, findings of potential hazards, and date of the survey and signature of person completing the form. LLR CONSTRUCTION SAFETY OFFICER will keep the forms in LLR CONSTRUCTION'S on-line data base.

LLR CONSTRUCTION SAFETY OFFICER will conduct, review, and update the hazard assessment for PPE whenever

- a job changes
- new equipment or process is installed
- there has been an accident
- whenever a supervisor or employee requests it
- or at least every year

Any new PPE requirements that are developed will be added into LLR CONSTRUCTION'S written accident prevention program.

# **B.** Selection of PPE

Once the hazards of a workplace have been identified, LLR CONSTRUCTION SAFETY OFFICER will determine if the hazards can first be eliminated or reduced by methods other than PPE, i.e., methods that do not rely on employee behavior, such as engineering controls (refer to Appendix B – Controlling Hazards).

If such methods are not adequate or feasible, then LLR CONSTRUCTION SAFETY OFFICER will determine the suitability of the PPE presently available; and as necessary, will select new or additional equipment which ensures a level of protection greater than the minimum required to protect our employees from the hazards (refer to Appendix C – Selection of PPE). Care will be taken to recognize the possibility of multiple and simultaneous exposure to a variety of hazards. Adequate protection against the highest level of each of the hazards will be recommended for purchase.

All personal protective clothing and equipment will be of safe design and construction for the work to be performed and will be maintained in a sanitary and reliable condition. Only those items of protective clothing and equipment that meet NIOSH or ANSI (American National Standards Institute) standards will be procured or accepted for use.

Newly purchased PPE must conform to the updated ANSI standards which have been incorporated into the PPE regulations, as follows:

- Eye and Face Protection ANSI Z87.1-1989
- Head Protection ANSI Z89.1-1986
- Foot Protection ANSI Z41.1-1991
- Hand Protection (There are no ANSI standards for gloves, however, selection must be based on the performance characteristics of the glove in relation to the tasks to be performed.)

Affected employees whose jobs require the use of PPE will be informed of the PPE selection and will be provided PPE by LLR CONSTRUCTION at no charge. Careful consideration will be given to the comfort and proper fit of PPE in order to ensure that the right size is selected and that it will be used. If an employee chooses to use his/her own PPE, the company will inspect the employee's PPE to ensure it meets standards and is properly maintained.

# **C.** Training

Any worker required to wear PPE will receive training in the proper use and care of PPE before being allowed to perform work requiring the use of PPE. Periodic retraining will be offered to PPE users as needed. The training will include, but not necessarily be limited to, the following subjects:

- When PPE is necessary to be worn
- What PPE is necessary
- How to properly don, doff, adjust, and wear PPE
- The limitations of the PPE
- The proper care, maintenance, useful life, and disposal of the PPE.
- Proper selection of PPE.

After the training, the employees will demonstrate that they understand how to

use PPE properly, or they will be retrained.

Training of each employee will be documented using the Personal Protective Equipment Training Documentation Form and kept on file. The document certifies that the employee has received and understood the required training on the specific PPE he/she will be using.

# <u>Retraining</u>

The need for retraining will be indicated when

- an employee's work habits or knowledge indicates a lack of the necessary understanding, motivation, and skills required to use the PPE (i.e., uses PPE improperly)
- new equipment is installed
- changes in the work place make previous training out-of-date
- changes in the types of PPE to be used make previous training out-of-date

# **D.** Cleaning and Maintenance of PPE

It is important that all PPE be kept clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. Employees must inspect, clean, and maintain their PPE according to the manufacturers' instructions. Supervisors are responsible for ensuring that users properly maintain their PPE in good condition.

Personal protective equipment must not be shared between employees until it has been properly cleaned and sanitized. PPE will be distributed for individual use whenever possible.

If employees provide their own PPE, make sure that it is adequate for the work place hazards, and that it is maintained in a clean and reliable condition.

Defective or damaged PPE will not be used and will be immediately discarded and replaced.

It is also important to ensure that contaminated PPE which cannot be decontaminated is disposed of in a manner that protects employees from exposure to hazards.

# **E.** Safety Disciplinary Policy

LLR CONSTRUCTION believes that a safety and health Accident Prevention Program is unenforceable without some type of disciplinary policy. Our company believes that in order to maintain a safe and healthful workplace, the employees must be cognizant and aware of all company, State, and Federal safety and health regulations as they apply to the specific job duties required. The following disciplinary policy is in effect and will be applied to all safety and health violations.

The following steps will be followed unless the seriousness of the violation would dictate going directly to Step 2 or Step 3.

- 1. A first-time violation will be discussed orally between company supervision and the employee. This will be done as soon as possible.
- 2. A second time offense will be followed up in written form and a copy of this written documentation will be entered into the employee's personnel folder.
- 3. A third time violation will result in time off or possible termination, depending on the seriousness of the violation.

#### **RESPIRATORY PROTECTION PROGRAM**

#### PURPOSE

The purpose of LLR Construction, LLC's respirator program is to establish standard operating procedures to ensure the protection of all employees from respiratory hazards through proper selection and use of respirators. This program applies to all employees who are required to wear respirators during normal operations, non-routine tasks, or emergency operations such as a spill of a hazardous substance.

#### RESPONSIBILITIES

#### **Program Administrator Duties**

Each facility has a designated program administrator to oversee the respiratory protection program. Duties of the program administrator include:

- Identifying work areas, processes or tasks that require workers to wear respirators, and evaluating hazards
- Selection of respiratory protection options
- Monitoring respirator use to ensure that respirators are used in accordance with their certifications
- Arranging for and/or conducting training
- Ensuring proper storage and maintenance of respiratory protection equipment
- Conducting or arranging for fit testing
- Administering the medical surveillance program
- Maintaining records required by the program
- Evaluating the program
- Updating written program as needed

#### **Supervisors Duties**

Supervisors are responsible for ensuring that the respiratory protection program is implemented in their particular areas. In addition to being knowledgeable about the program requirements for their own protection, supervisors must also ensure that the program is understood and followed by the employees under their charge. Duties of the supervisor include:

- Ensuring that employees under their supervision (including new hires) have received appropriate training, fit testing, and medical evaluation
- Ensuring the availability of appropriate respirators and accessories
- Being aware of tasks requiring the use of respiratory protection
- Enforcing the proper use of respiratory protection when necessary

- Ensuring that respirators are properly cleaned, maintained, and stored according to the respiratory protection plan
- Ensuring that respirators fit well and do not cause discomfort
- Continually monitoring work areas and operations to identify respiratory hazards
- Coordinating with the program administrator on how to address respiratory hazards or other concerns regarding the program

#### **Employees Duties**

Each employee has the responsibility to wear his or her respirator when and where required and in the manner in which they were trained. Employees must also:

- Care for and maintain their respirators as instructed and store them in a clean sanitary location
- Inform their supervisor if the respirator no longer fits well, and request a new one that fits properly
- Inform their supervisor or the Program administrator of any respiratory hazards that they feel may not be adequately addressed in the workplace and of any other concerns that they have regarding the program

# **PROGRAM ELEMENTS**

#### **Respirator Selection**

Respirators are selected on the basis of the hazards to which the employees are exposed and in accordance with OSHA requirements. Only NIOSH certified respirators will be selected and used.

The Program Administrator will conduct a hazard evaluation for each operation process, or work area where airborne contaminants may be present in routine operations or during an emergency. *The hazard evaluation will include*:

- Identification of the hazardous substances used in the workplace, department or work process;
- Review of work processes to determine where potential exposures to these hazardous substances may occur; and
- Exposure monitoring to quantify potential hazardous exposures.

The locations of results of hazard evaluations will be made known for employee review.

The program administrator will revise and update the hazard assessment as needed (i.e., any time work process changes which may potentially affect exposure).

# General requirements

- The employer shall select and provide an appropriate respirator based on the respiratory hazard(s) to which the worker is exposed and workplace and user factors that affect respirator performance and reliability.
- The employer shall select a NIOSH-certified respirator. The respirator shall be used in compliance with the conditions of its certification.
- The employer shall identify and evaluate the respiratory hazard(s) in the workplace; this evaluation shall include a reasonable estimate of employee exposures to respiratory hazard(s) and an identification of the contaminant's chemical state and physical form. Where the employer cannot identify or reasonably estimate the employee exposure, the employer shall consider the atmosphere to be IDLH.
- The employer shall select respirators from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.

# Respirators for Immediately Dangerous to Life and Health (IDLH) atmospheres

- The employer shall provide the following respirators for employee use in IDLH atmospheres:
  - A full facepiece pressure demand SCBA certified by NIOSH for a minimum service life of thirty minutes, or
  - A combination full facepiece pressure demand supplied-air respirator (SAR) with auxiliary self-contained air supply.
- Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.
- All oxygen-deficient atmospheres shall be considered IDLH. Exception: If the employer demonstrates that, under all foreseeable conditions, the oxygen concentration can be maintained within the ranges specified in Table II of this section [29 CFR 1910.134(d), i.e., for the altitudes set out in the table], then any atmosphere-supplying respirator may be used.

#### Respirators for atmospheres that are not IDLH

• The employer shall provide a respirator that is adequate to protect the health of the employee and ensure compliance with all other OSHA statutory and regulatory requirements, under routine and reasonably foreseeable emergency situations.

#### **NIOSH Certification**

All respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall be used in accordance with the terms of that certification. Also, all filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced while it is in use.

#### Voluntary Respirator Usage

This company will provide (or allow employee-owned) respirators to employees for voluntary usage.

The Program Administrator will provide all employees who voluntarily choose to wear either of the above respirators with a copy of Appendix D of the standard. (Appendix D details the requirements for voluntary use of respirators by employees.) Employees choosing to wear a half facepiece air purifying respirators (APR) must comply with the procedures for medical evaluation, respirator use, and cleaning, maintenance and storage.

The Program Administrator shall authorize voluntary use of respiratory protective equipment as requested by all other workers on a case-by-case basis, depending on specific workplace conditions and the results of the medical evaluations.

#### Respirator Filter & Canister Replacement/Change Schedule

An important part of the Respiratory Protection Program includes identifying the useful life of canisters and filters used on air purifying respirators. Each filter and canister shall be equipped with an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant; or

If there is no ESLI appropriate for conditions a change schedule for canisters and cartridges that is based on objective information or data that will ensure that canisters and cartridges are changed before the end of their service life.

Cartridges/Filters shall be changed based on the most limiting factor below:

- Prior to expiration date
- Manufacturer's recommendations for use and environment
- After each use
- When requested by employee
- When restriction to air flow has occurred as evidenced by increased effort by user to breathe normally

# Medical Evaluation

Employees who are required to wear respirators must be medically evaluated before being permitted to wear a respirator on the job. Employees are not permitted to wear respirators until a physician has determined that they are medically able to do so.

A licensed health care professional will provide the medical evaluation to employees. Medical evaluation procedures are as follows:

- The medical evaluation will be conducted using medical questionnaire provided in Appendix C of 29 CFR 1910.134 Respiratory Protection Standard. All employees requiring medical evaluation will receive a copy of this questionnaire.
- To the extent feasible, the company will assist employees who are unable to read the questionnaire. When this is not possible the employee will be sent directly to the health care professional for assistance and medical evaluation.
- All affected employees will be given a copy of the medical questionnaire to fill out, along with a stamped and addressed envelop for mailing the questionnaire to the health care professional. Employees will be permitted to fill out the questionnaire on company time.
- Follow up medical exams will be provided to employees as required by the OSHA standard, and/or as deemed necessary by the health care professional.
- All employees will be allowed the opportunity to speak with the health care professional about their medical evaluation if they so request.
- The program administrator will provide the health care professional with a copy of this program and a copy of OSHA's respiratory protection standard. For each employee requiring evaluation, the health care professional will be provided with information regarding the employee's work area or job title, proposed respirator type and weight, length of time required to wear the respirator, expected physical work load (light, moderate, or heavy), potential temperature and humidity extremes, and any additional protective clothing required.
- After an employee has received clearance to wear a respirator, additional medical evaluations will be provided under any of the following circumstances:
  - The employee reports signs and/or symptoms related to their ability to use a respirator, such as shortness of breath, dizziness, chest pains, or wheezing;
  - The health care professional or supervisor informs the Program Administrator that the employees needs to be reevaluated;
  - Information from this program, including observations made during fit testing and program evaluation, indicates a need for reevaluation; and
  - A change occurs in workplace conditions that may result in an

increased physiological burden on the employee.

NOTE: All examinations and questionnaires are to remain confidential between the employee and the physician.

# **<u>Fit Testing Procedures</u>**

The Superintendent will ensure that fit-test will be administered using an OSHAaccepted qualitative fit test (QLFT) or quantitative fit test (QNFT) protocol. The OSHA- accepted QLFT and QNFT protocols are contained in Appendix A of the Respiratory Standard (1910.134).

LLR Construction, LLC requires employees to be fit tested at the following times and with the same make, model, style, and size of respirator that they will be using.

- Before being allowed to wear any respirator with a tight-fitting facepiece and at least annually thereafter;
- Whenever a different respirator facepiece (size, style, model, or make) is used;
- Whenever visual observations of changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight; and
- Upon employee notification that the fit of the respirator is unacceptable.

The company has established a record of the fit tests administered to employees including:

- The name or identification of the employee tested;
- Type of fit test performed;
- Specific make, model, style, and size of respirator tested;
- Date of test; and
- The pass/fail results

#### <u>Use of Respirators</u>

#### **General Use Procedures**

Employees will use their respirators under conditions specified by this program, and in accordance with the training they receive on the use of each particular model. In addition, the respirator shall not be used in a manner for which it is not certified by NIOSH or its manufacturer.

All employees shall conduct user seal checks each time that they wear their respirator. Employees shall use either the positive or negative pressure check (depending on which test works best for them) specified in Appendix B-1 of the Respiratory Protection Standard.

All employees shall be permitted to leave the work are to maintain their respirator for the following reasons: to clean their respirator if the respirator is impeding their ability to work, change filters or cartridges, replace parts, or to inspect respirator if it stops functioning as intended. Employees should notify their supervisor before leaving the area.

Employees are not permitted to wear tight fitting respirators if they have any condition, such as facial hair, facial scars, or missing dentures that prevents them from achieving a good seal. Employees are not permitted to wear headphones, jewelry, or other articles that may interfere with the facepiece to face seal.

#### Example: Emergency Procedures (Per Job Worksheet)

The following work areas have been identified as having foreseeable emergencies: *(FILL IN AS REQUIRED)* 

- •
- .
- •

Emergency escape respirators are located: \_\_\_\_\_ (Insert Location).

#### Immediately Dangerous to Life or Health (IDLH) Procedures

The Program Administrator has identified the following area(s) as presenting the potential for IDLH conditions: *(FILL IN AS REQUIRED)* 

#### **Respirator Malfunction**

For any malfunction of a respirator (e.g., such a breakthrough, facepiece leakage, or improperly working valve), the respirator wearer should inform his or her supervisor that the respirator no longer functions as intended, and leave the area going to a safe area to maintain the respirator. The supervisor must ensure that the employee receives the needed parts to repair the respirator or is provided with a new respirator.

# Maintenance and Care Procedures

In order to ensure continuing protection from the respirators being use, it is necessary to establish and implement proper maintenance and care procedures and schedules. A lax attitude toward maintenance and care will negate successful selection and fit because the devices will not deliver the assumed protection unless they are kept in good working order.

# **Cleaning & Disinfecting**

Our company provides each respirator user with a respirator that is clean, sanitary, and in good working order. We ensure that respirators are cleaned and disinfected weekly or as often as necessary to be maintained in a sanitary condition. Respirators are cleaned and disinfected using the procedures specified in Appendix B-2 of the standard or manufacturer's recommendations. Respirators are cleaned and disinfected:

- As often as necessary when issued for the exclusive use of one employee;
- Before being worn by different individuals;
- After each use for emergency use respirators; and
- After each use for respirators used for fit testing and training.

# Storage

Storage of respirators must be done properly to ensure that the equipment is protected and not subject to environmental conditions that may cause deterioration. We ensure that respirators are stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals. They are packed and stored in \_\_\_\_(Indicate methods use for storage and location), in accordance with any applicable manufacturer's instructions.

Emergency respirators are stored:

- To be accessible to the work area;
- In compartments marked as such; and
- In accordance with manufacturer's recommendations.

# **Respirator Inspection**

All respirators will be inspected after each use and at least monthly. Should any defects be noted, the respirators will be taken to the program administrator or supervisor. Damaged respirators will be either repaired or replaced.

Respirators shall be inspected as follows:

- All respirators used in routine situations shall be inspected before each use and during cleaning;
- All respirators maintained for use in emergency situations shall be inspected at least monthly and in accordance with manufacturer's recommendations, and shall be checked for proper function before and after each use; and
- Emergency escape-only respirators shall be inspected before being carried into the workplace for use.

Respirator inspections shall include the following:

- A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the facepiece, head straps, valves, connecting tube, and cartridges, canisters or filters; and
- Check of elastomeric parts for pliability and signs of deterioration.

The following checklist will be used when inspecting respirators:

- Facepiece:
  - cracks, tears, or holes
  - facemask distortion
  - cracked or loose lenses/faceshield
- Headstraps:
  - breaks or tears
  - broken buckles
- Valves:
  - residue or dirt
  - cracks or tears in valve material
- Filters/Cartridges:
  - approval designation
  - gaskets
  - cracks or dents in housing
  - proper cartridge for hazard
- Air Supply Systems:
  - breathing air quality/grade
  - condition of supply hoses
  - hose connections

• settings on regulators and valves

# <u>Training</u>

LLR Construction, LLC will be responsible to provide training to respirator training to respirator users or their supervisors on the contents of the Respiratory Protection Program and their responsibilities under it, and on the OSHA Respiratory Protection Standard. Workers will be trained prior to using a respirator in the workplace. Supervisors will also be trained prior to using a respirator in the workplace or prior to supervision of employees that must wear respirators.

#### The training will cover the following topics:

- The LLR Construction, LLC Respiratory Protection Program
- The OSHA Respiratory Protection Standard
- Respiratory hazards encountered and their health effects
- Proper selection and use of respirators
- Limitations of respirators
- Respirator donning and user seal (fit) checks
- Fit testing
- Emergency use procedures
- Maintenance and storage
- Medical signs and symptoms limiting the effective use of respirators

Employees will be retrained annually or as needed (e.g., if they need to use a different respirator). Employees must demonstrate their understanding of the topics covered in the training utilizing a hands-on exercise and a written test. Respirator training will be documented by the Program Administrator and the documentation will include the type, model, and size of respirator for which each employee has been trained and fit tested.

#### **Program Evaluation**

The program administrator will conduct periodic evaluations of the workplace to ensure that the provisions of this program are being implemented. The evaluation will include regular consultations with employees who use respirators and their supervisors, site inspections, air monitoring and review of records.

Identified problems will be noted and addressed by the Program Administrator. These findings will be reported to management, and the report will list plans to correct deficiencies in the respirator program and target dates for the implementations of those corrections.

# **Documentation and Recordkeeping**

A written copy of this program and the OSHA standard is kept in the Program Administrator's office and is available to all employees who wish to review it.

Also maintained in the Program Administrator's office are copies of training and fit test records. These records will be updated as new employees are trained, as existing employees receive refresher training, and as new fit tests are conducted.

The Program Administrator will also maintain copies of the medical records for all employees covered under the respirator program. The completed medical questionnaire and the physician's documented findings are confidential and will remain at the office of the registered medical professional. The company will only retain the physician's written recommendation regarding each employee's ability to wear a respirator.

#### LLR Construction

VOLUNTARY AND REQUIRED RESPIRATOR USE				
RESPIRATOR	DEPARTMENT/PROCESS			
[Example: Filtering facepiece	[Voluntary use for warehouse workers]			
(dust mask)]				
[Example: Half-facepiece APR or	[Prep and Assembly]			
PAPR with P100 filter]	[Voluntary use for maintenance			
	workers when cleaning spray booth			
	walls or changing spray booth filter]			

#### **Hazard Assessment**

Department	Contaminants	Exposure	PEL	Controls
		Level		
		(8 hrs TWA)		
[Example: e.g., Prep: sanding]	wood dust	2.5 - 7.0 mg/m <sup>3</sup>	$5 mg/m^{3}$ $(TLV = 1)$ $mg/m^{3}$	Local exhaust ventilation for sanders, Half- facepiece APR with P100 filter.

[Example:	methyle	70 ppm	25 ppm	Local exhaust
e.g., Prep:	ne		125ppm	ventilation (LEV)
cleaning]	chloride		(STEL)	to be installed for
		150 ppm		cleaning stations.
			200 ppm	Continuous flow
	metha	400 ppm		SAR hood until
			1,000 ppm	then needed for
	nol			respiratory
				protection. Will
	acetone			reevaluate
				after LEV
				installation.

#### Purpose

Many types of cranes, hoists, and rigging devices are used at LLR Construction for lifting and moving materials. LLR Construction policy is to maintain a safe workplace for its employees; therefore, it cannot be overemphasized that only qualified and licensed individuals shall operate these devices. The safety rules and guidance in this chapter apply to all operations for LLR Construction that involve the use of cranes and hoists installed in or attached to buildings and to all LLR Construction employees, supplemental labor, and subcontractor personnel who use such devices.

#### Responsibilities

#### Supervisors are responsible for:

- Ensuring that employees under their supervision receive the required training and are certified and licensed to operate the cranes and hoists in their areas.
- Ensuring that hoisting equipment is inspected and tested monthly by a responsible individual and that rigging equipment is inspected annually.

#### **Crane and Hoist Operators are responsible for:**

- Operating hoisting equipment safely.
- Conducting functional tests prior to using the equipment.
- Selecting and using rigging equipment appropriately.
- Having a valid operator's license on their person while operating cranes or hoists.
- Participating in the medical certification program, as required.

#### **Crane Owner/Subcontractor is responsible for:**

Performing annual maintenance and inspection of all cranes and hoists that are not covered by a program with maintenance responsibility.

- Conducting periodic and special load tests of cranes and hoists.
- Maintaining written records of inspections and tests, and providing copies of all inspections and test results to facility managers and building coordinators who have cranes and hoists on file.

- Inspecting and load testing cranes and hoists following modification or extensive repairs (e.g., a replaced cable or hook, or structural modification.)
- Scheduling a non-destructive test and inspection for crane and hoist hooks at the time of the periodic load test, and testing and inspecting before use new replacement hooks and other hooks suspected of having been overloaded. The evaluation, inspection, and testing may include, but are not limited to visual, dye penetrant, and magnetic particle techniques referenced in ASME B30.10 (Hooks, Inspection and Testing.)
- Maintaining all manuals for cranes and hoists in a central file for reference.
- Crane Manufacture or Professional Engineer must be used for any modifying of crane equipment if it will impact safe operation of the crane.

#### Safe Operating Requirements

All crane or hoist Owners/Subcontractors shall have an operator's license. The company issues licenses for authorized employees who have been specifically trained in crane and hoist operations and equipment safety.

Crane Owner/Subcontractor shall provide current inspection reports as well as operator licenses information to LLR Construction at time of hire.

Manufacturers requirements must be followed by a competent/qualified person while assembling and dissembling cranes.

A pre-lift meeting will be held before crane operations are permitted to address any and all site hazards.

A Pre-planning must take place if crane operation are identified within 20' of overhead electrical lines.

#### **Crane and Hoist Safety Design Requirements**

Following are the design requirements for cranes and hoists and their components:

- The design of all commercial cranes and hoists shall comply with the requirements of ASME/ANSI B30 standards and Crane Manufacturer's Association of America standards (CMAA-70 and CMAA-74).
- All crane and hoist hooks shall have safety latches.
- Hooks shall not be painted (or re-painted) if the paint previously applied by the manufacturer is worn.

- Each hoist-hook block shall be labeled with the maximum hook capacity.
- All cab and remotely operated cranes shall have a motion alarm to signal movement.
- If an overload device is installed, a load test to the adjusted setting is required.
- Personnel baskets and platforms suspended from any crane shall be designed in accordance with the specifications in 29 CFR 1926.550(g).

#### **General Safety Rules**

Operators shall comply with the following rules while operating the cranes and hoists:

- Do not engage in any practice that will divert your attention while operating the crane.
- All mobile crane must be operated on stable ground and utilize pads for outriggers as needed.
- Crane operational manual must be in crane at all time with a legible load chart
- All crane safety devices must be in proper working order
- Respond to signals only from the person who is directing the lift, or any appointed signal person. Obey a stop signal at all times, no matter who gives it.
- Crane operator has the right to refuse to lift a load if there are safety concerns.
- Operator will flag swing radius before operating.
- A signal person will be use to give hand signals to assist crane operator.
- Do not move a load over people. People shall not be placed in jeopardy by being under a suspended load. Also, do not work under a suspended load unless the load is supported by blocks, jacks, or a solid footing that will safely support the entire weight. Have a crane or hoist operator remain at the controls at all times.
- Ensure that the rated load capacity of a crane, individual hoist, or any sling or fitting is not exceeded. Know the weight of the object being lifted or use a dynamometer or load cell to determine the weight.
- Avoid side pulls. These can cause the hoist rope to slip out of the drum groove, damaging the rope or destabilizing the crane or hoist.

• To prevent shock loading, avoid sudden stops or starts. Shock loading can occur when a suspended load is accelerated or decelerated, and can overload the crane or hoist. When completing an upward or downward motion, ease the load slowly to a stop.

#### **Operation Rules**

#### **Pre-operational Test**

At the start of each work shift, operators shall follow Crane Owner/Subcontractors daily steps before making lifts with any crane or hoist:

#### Moving a Load

- Center the hook over the load to keep the cables from slipping out of the drum grooves and overlapping, and to prevent the load from swinging when it is lifted. Inspect the drum to verify that the cable is in the grooves.
- Use a tag line when loads must traverse long distances or must otherwise be controlled.
- Plan and check the travel path to avoid personnel and obstructions.
- Lift the load only high enough to clear the tallest obstruction in the travel path.
- Start and stop slowly.
- Land the load when the move is finished. Choose a safe landing.
- *Never* leave suspended loads unattended. In an emergency where the crane or hoist has become inoperative, if a load must be left suspended, barricade and post signs in the surrounding area, under the load, and on all four sides.

#### Rigging

#### **General Rigging Safety Requirements**

Only select rigging equipment that is in good condition and inspected before use. All rigging equipment shall be inspected before use and include inspections of items such as control mechanisms, pressurized lines, hooks and latches, wire rope, electrical apparatus, tires (when used), and ground conditions. ; defective equipment is to be removed from service and destroyed to prevent inadvertent reuse. The load capacity limits shall be stamped or affixed to all rigging components.

LLR Construction's policy requires a minimum safety factor of 5 to be maintained for wire rope slings. The following types of slings shall be

#### rejected or destroyed:

#### Nylon slings with

- Abnormal wear.
- Torn stitching.
- Broken or cut fibers.
- Discoloration or deterioration.

#### Wire-rope slings with

- Kinking, crushing, bird-caging, or other distortions.
- Evidence of heat damage.
- Cracks, deformation, or worn end attachments.
- Six randomly broken wires in a single rope lay.
- Three broken wires in one strand of rope.
- Hooks opened more than 15% at the throat.
- Hooks twisted sideways more than 10deg. from the plane of the unbent hook.

#### Alloy steel chain slings with

- Cracked, bent, or elongated links or components.
- Cracked hooks.

# Shackles, eye bolts, turnbuckles, or other components that are damaged or deformed.

#### **Rigging a Load**

Do the following when rigging a load:

- Determine the weight of the load. Do not guess.
- Determine the proper size for slings and components.
- Do not use manila rope for rigging.
- Make sure that shackle pins and shouldered eye bolts are installed in accordance with the manufacturer's recommendations.
- Make sure that ordinary (shoulderless) eye bolts are threaded in at least 1.5 times the bolt diameter.
- Use safety hoist rings (swivel eyes) as a preferred substitute for eye bolts wherever possible.
- Pad sharp edges to protect slings. Remember that machinery foundations or angle-iron edges may not feel sharp to the touch

but could cut into rigging when under several tons of load. Wood, tire rubber, or other pliable materials may be suitable for padding.

- Do not use slings, eye bolts, shackles, or hooks that have been cut, welded, or brazed.
- Determine the center of gravity and balance the load before moving it.
- Initially lift the load only a few inches to test the rigging and balance.

#### **Crane Overloading**

Cranes or hoists shall not be loaded beyond their rated capacity for normal operations. Any crane or hoist suspected of having been overloaded shall be removed from service. Additionally, overloaded cranes shall be inspected, repaired, load tested, and approved for use before being returned to service.

#### Working at Heights on Cranes or Hoists

Anyone conducting maintenance or repair on cranes or hoists at heights greater than 6 ft shall use fall protection. Fall protection should also be considered for heights less than 6 ft Fall protection includes safety harnesses that are fitted with a lifeline and securely attached to a structural member of the crane or building or properly secured safety nets.

#### Hand Signals

Signals to the operator shall be in accordance with the standard hand signals unless voice communications equipment (telephone, radio, or equivalent) is used. Signals shall be discernible or audible at all times. Some special operations may require addition to or modification of the basic signals. For all such cases, these special signals shall be agreed upon and thoroughly understood by both the person giving the signals and the operator, and shall not be in conflict with the standard signals.

#### Inspection, Maintenance, and Testing

All tests and inspections shall be conducted in accordance with the manufacturers recommendations.

Document monthly inspection completed by competent person

LLR Construction shall be provided copies of inspection, maintenance, and testing forms from Crane Owner/Subcontractors upon request.

#### **RIGGING SAFETY**

#### I. PURPOSE

- a. LLR CONSTRUCTION, LLC is dedicated to the protection of our employees from occupational injuries and illnesses.
- b. LLR CONSTRUCTION is responsible for providing a safe working environment, and the employees have and must assume the responsibility of working safely.
- c. LLR CONSTRUCTION recognizes the potential for serious injury or death while rigging & lifting materials with the help of cranes. To reduce the potential, this program was developed to communicate the proper techniques of rigging.

#### II. RIGGING

- a. The term "rigging" refers to both of the following:
  - i. The hardware and equipment used to safely attach a load to a lifting device.
  - ii. The process of safely attaching a load to a hook by means of adequately rated and properly applied slings and related hardware.

#### III. GENERAL RIGGING SAFETY REQUIREMENTS

- a. The following requirements apply:
  - i. Only rigging equipment that is in good condition may be used.
  - ii. Rigging equipment shall be inspected to ensure it is safe.
  - 1. Rigging equipment for material handling shall be inspected prior to use on each shift and as necessary during its use to ensure that it is safe.
  - iii. Defective equipment shall not be used and removed from service immediately.
  - iv. Rigging equipment shall not be loaded beyond its recommended safe working load.
  - v. Identification markings, indicating rated capacity for the type(s) of hitch(es) used, the angle upon which it is based, and the number of legs if more than one, shall be permanently affixed to the rigging. The rated capacity shall not be exceeded.
  - vi. All employees shall be kept clear of loads about to be lifted and of suspended loads.
  - vii. All rigging equipment shall be stored and maintained in accordance with the manufacturer's recommendations.
  - viii. Rigging equipment not in use shall be removed from the immediate work area so as not to present a hazard to employees.
  - ix. Slings (e.g., wire rope, synthetic web or rope, and chain) and rigging hooks shall:
    - 1. Be inspected at least annually by a qualified inspector
    - 2. Have a documented inspection history, with records readily available
    - 3. Be labeled for identification purposes with a durable tag (synthetic or

metal) permanently affixed to the device.

- x. Equipment that is not properly labeled shall not be used. However, manufacturer-supplied serial numbers or other individualized markings meet the labeling requirement
- xi. The Responsible Individual for the equipment shall ensure that a designated person (Competent Person) determines whether conditions found during inspection constitutes a hazard and whether a more detailed inspection is required.
- xii. Defective equipment shall be removed from service and destroyed to prevent inadvertent reuse.
- xiii. All rigging equipment shall be maintained, inspected, tested (or calibrated), inventoried, and stored.
- xiv. The Competent Person shall ensure that equipment purchased through commercial channels meets or exceeds the requirements.
- xv. Examples of conditions that may require rigging hardware to be removed from service are:
  - 1. Synthetic slings with
    - a. Abnormal wear
    - b. Torn stitching
    - c. Visible red threads from the interior of the sling fabric
    - d. Broken or cut fibers
    - e. Discoloration or deterioration
    - f. Evidence of heat damage
  - 2. Wire-rope slings with:
    - a. Kinking, crushing, bird-caging, or other distortions
    - b. Evidence of heat damage
    - c. Cracks, deformation, or worn end attachments
    - d. Broken wires in excess of regulatory requirements
  - 3. Hooks
    - a. opened more than 15% at the throat
    - b. Hooks twisted sideways more than 10° from the plane of the unbent hook
  - 4. Shackles, eye bolts, turnbuckles, or other components that are damaged or deformed.
- xvi. Hooks on overhaul ball assemblies, lower load blocks, or other attachment assemblies shall be of a type that can be closed and locked, eliminating thehook throat opening.
  - 1. Alternatively, an alloy anchor type shackle with a bolt, nut and retaining pin may be used.
- xvii. The manufacturer's requirements shall also be consulted, and the most conservative requirements shall prevail.

#### IV. RIGGING A LOAD

- a. Do the following when rigging a load:
  - i. Determine the weight of the load Do not guess
  - ii. Determine the proper size for slings and components

- iii. Make sure that shackle pins and shouldered eye bolts are installed in accordance with the manufacturer's recommendations
- iv. Make sure that ordinary (i.e., shoulderless) eye bolts are threaded in at least 1.5 times the bolt diameter
- v. Use safety hoist rings (i.e., swivel eyes) as a preferred substitute for eye bolts whenever possible
- vi. Ensure that all hooks are equipped with a safety latch to eliminate the throat opening.

vii. Pad sharp edges to protect slings.

- 1. Machinery foundations or angle-iron edges may not feel sharp to the touch but could cut into rigging when under several tons of load.
- 2. Wood, tire rubber, or other pliable materials may be suitable for padding.
- viii. Do not use slings, eye bolts, shackles, or hooks that have been cut, welded, or brazed
- ix. Determine the center of gravity, and balance the load before moving it.
- x. Keep the attachment points of rigging accessories as far above and as far away from the center of gravity as possible
- xi. Initially lift the load only a few inches to test the rigging and balance
- xii. Tag lines shall be used unless their use creates an unsafe condition
- xiii. Protect rigging hardware as required. Items left in the sun may have surface temperatures that exceed the safe limits of synthetic lifting devices

# v. CRANE SAFETY

- a. Cranes must not be assembled or used unless ground conditions are firm, drained, and graded to a sufficient extent so that, in conjunction (when necessary) with the use of supporting materials, the equipment manufacturer's specifications for adequate support and degree of level of the equipment are met.
- b. The crane manufacturer's procedures and prohibitions must be compiled with when assembling and disassembling equipment.
  - i. The assembly/disassembly of equipment must be directed by a competent and qualified person.
- c. The work zone shall be identified by demarcating boundaries such as flags and range limiting devices, or defining the work zone as 360 degrees around the equipment up to the maximum working radius.
- d. The hazard assessment must determine if any part of the equipment could get closer than 20 feet to a power line.

#### SCAFFOLDING

#### **Training and Communication**

LLR Construction will provide join training to ensure that the purpose and function of the scaffolding policy is understood by employees and that the knowledge and skills required for the safe application, usage, of scaffolds are understood by employees. A competent person must ensure scaffolds are safe prior to use. All persons erecting or setting scaffolding must be a qualified/competent person trained by a third-party trainer according to the manufacturer's requirements which include the following:

Procedures for providing Fall Protection and laying out scaffolding.

- 1. Survey of job site for Hazards:
  - A. Uneven Terrain
  - B. Wet or muddy ground
- 2. Determine height of scaffold to be erected.
- 3. Determine how corners on scaffolding will be made.
- 4. Inspect all components before using and reject all damaged parts.

DO NOT use parts that do not match.

Re-training will be required annually or as required to maintain safe Conditions on worksites. ASSEMBLY

1. Set base plates/mud sills. Mud Sills must be a minimum of 2" X 10" X 10" or equivalent. DO NOT use cinder blocks, 2 X 4's buckets, rocks or bricks.

You can use:

- A. Scaffold planking
- B. Metal pads 10" X 10" (must not over-lap scaffold frame)

Remember: The weight of scaffolds, men and equipment will be resting on mudsills/base plates.

- 2. Install base plates (rigid or adjustable) on scaffold legs.
  - A. Make sure that they are secured properly.
  - B. Make sure that they are the proper plates that fit the legs.
- 3. Start base run at high ground and make sure that it is plump and level.
- 4. All base frames must be braced:
  - A. Inside and out
  - B. Bracing must be secured properly

- 5. Tie scaffolding to building (minimum #2 wire)
  - A. Each 30' horizontally maximum
  - B. Each 20' vertically maximum
- 6. Planking material:
  - A. Scaffold grade lumber only and must be stamped, "scaffold grade"
  - B. Lumber or metal planking must be in good condition. No
  - cracks in lumber or broken weld or rivets on metal planking.
  - C. Assign designated person to inspect regularly.

If a scaffold is found to be defective or have unsafe conditions, the equipment must be tagged out by a competent person.

7. Planks must extend over and supports a minimum of six (6) inches and a maximum of twelve

(12) inches. Metal plank hook must fit over scaffold support securely by at least  $^{3\!4}$  around.

- 8. Planks overlap each other over center support by a minimum of (12) inches.
- 9. Cleats are recommended to tie planks together underneath.
- 10. Work deck must be fully planked, if not guard rails will be ineffective.

#### FALL PROTECTION REQUIREMENTS

1. All open ends and sides of working platforms more than ten (10) feet above ground or floor, must be provided with:

A. Top rail 42 inches high made of 2" x 4" lumber or equivalent strength must be able to withstand 200 pounds pressure and secured properly.

B. Mid-rails must be 21 inches high of 1" x 6" lumber or equivalent to withstand 150 pounds of pressure.

- C. Toe boards a minimum of 3 ½ inches high along top edge of working platform.
- D. Vertical support posts, not more than eight (8) feet apart and secured properly.

#### WORKING ON SCAFFOLDING

- 1. Means of egress provided to gain access to work platform:
  - A. Use of ladders.
  - B. Use of scaffold frame, if rungs are provided.
  - C. <u>DO NOT</u> use cross bracing for climbing.
- 2. Overhead protection is required when:
  - A. Working on scaffolding and overhead hazards are present.
  - B. Working underneath scaffolding activity.

- C. When assembling or dismantling scaffolding.
- D. When other personnel walk underneath scaffolding.
- 3. Slippery conditions or trip hazards must be eliminated on work platforms, such as:
  - A. Ice or Mud
  - B. Scrap lumber, sheetrock, electrical cords, etc.
  - C. Housekeeping must be maintained on work platform and
  - under scaffolding to help prevent tripping and falls at all times.

4. REMEMBER: <u>DO NOT</u> work on scaffolding during high winds. 25 miles per hour according to ANSI Regulations and 40 miles per hour according to OSHA Regulations.

5. During assembly or when working on scaffolding beware of overhead electrical hazards, keep all metal scaffold a minimum of ten (10) feet away from high tension electrical wires.

ADDITIONAL SAFETY CHECK LIST REQUIREMENTS

1. On scaffolding that is less than ten (10) feet high. Fall protection must be provided if hazards such as exposed rebar or fall hazards are great due to different floor heights.

- 2. If working on rolling scaffolding that is less than 45 inches wide.
- 3. Never ride a moving scaffold.

4. Always wear a safety belt, such as a safety lanyard attached to the building or solid support (NOT ATTACHED TO THE SCAFFOLD).

- 5. Never reach over guard rails, work only within the platform area.
- 6. Never overload scaffolding.
- 7. Lock and/or block wheels on rolling scaffold.

8. Provide a wire mesh screen or equivalent protection on work platform between top rail and toe board to protect other workers who walk under scaffolding going into or out of building.

#### NOTE: Only a Qualified/Competent Person is allowed to erect or dismantle a scaffold. Qualification training will be administered by a third-party trainer.

#### SPILL PREVENTION AND RESPONSE PLAN

The following are steps and procedures to follow by the LLR Construction LLC's employees for preventing spills and responding to chemical or hazardous substance spills.

#### 1) Spill Prevention

#### Hazardous Substance Management

All hazardous substances, including chemical wastes, are to be managed in a way that prevents release. The following general requirements are to be followed:

- Container Management:
  - All hazardous substance containers must be labeled pursuant to OSHA hazardous communication guidelines and OSHA Safety Data Sheets (SDS) must be immediately available for review.
  - All hazardous substance containers must be in good condition and compatible with the materials stored within.
  - All hazardous substance containers must be accessible and spacing between containers must provide sufficient access to perform periodic inspections and respond to releases.
  - Empty hazardous substance containers (drums) must have all markers and labels removed and the container marked with the word 'empty'.
  - Any spills on the exterior of the container must be cleaned immediately.
  - Flammable materials stored or dispensed from drums or totes must be grounded to prevent static spark.
  - Do not overfill waste drums. 4" of headspace must remain to allow for expansion.
- Good Housekeeping:
  - All hazardous substances must be stored inside buildings or under cover.
  - Store hazardous substances not used daily in cabinets, or in designated areas.
  - All chemicals that are transferred from larger to smaller containers must be transferred by use of a funnel or spigot.
  - All hazardous substance containers should be closed while not in use.
  - Use drip pans or other collection devices to contain drips or leaks from dispensing containers or equipment.

- Implement preventative maintenance activities to reduce the potential for release from equipment.
- Immediately clean up and properly manage all small spills or leaks.
- Periodically inspect equipment and hazardous substance storage areas to ensure leaks or spills are not occurring.
- Use signage to identity hazardous substance storage or waste collection areas.
- Keep all work areas and hazardous substance storage areas clean and in good general condition.
- Chemical substances should be stored in proper containers to minimize the potential for a spill. Whenever possible, chemicals shall be kept in closed containers and stored so they are not exposed to stormwater.
- Secondary containment:
  - Store all bulk chemicals (≥55 gallons) within appropriate secondary containment, or any sized chemical if there is a potential for release to the environment.
  - Secondary containment should be checked periodically, and any spills identified in secondary containment must be immediately cleaned up and removed.
- Marking/labeling:
  - Ensure all hazardous substances, including chemical wastes, are properly marked and labeled in accordance with all federal, state and local regulations.
  - Ensure that hazardous substances transferred to small containers are marked with the chemicals name (example-"Isopropyl Alcohol") and hazard (example-"Flammable").

#### **Employee Training**

All employees must receive periodic training on the following topics:

- 1. Spill prevention practices
- 2. Where to locate and how to interpret OSHA SDS and pictograms.
- 3. Spill response plan
- 4. Emergency response procedures

Training must include a review of this Spill Prevention and Response Plan, and a review of location and use of emergency response equipment. Training can be recorded through safety committee meetings, staff training logs, or other equivalent record keeping.

#### Hazardous Substance Inventory

An inventory must be maintained for all stored hazardous substances <55 gallons, and/or list of locations where non-bulk hazardous substances are stored (i.e. flammable lockers - shop floor). Materials manufactured, stored, used and/or generated as a chemical waste in quantities  $\geq$ 55 gallons should also be inventoried. Inventories should be maintained similar to the example shown below.

Hazardous Substance	Manufacture	Quantity/Unit of	Location
	<u>r</u>	Issue	
(Example) Isopropyl Alcohol	Acme Co.	60 / 1-gl	Fleet Shop

#### Spill Response Equipment

Spill response equipment must be maintained and located in areas where spills are likely to occur. Spill kits should provide adequate response capabilities to manage any anticipated spill or release. The following general requirements are to be followed which include:

- Stock spill clean-up kits that are compatible with the hazardous substances stored on site.
- Locate spill kits in areas where spills are likely to occur (loading docks, chemical storage areas, locations where hazardous substance are being transferred).
- Spill kits should be sized to manage an anticipated release (spill equal to the largest container).
- Emergency response equipment should be inspected periodically to ensure that the spill kit is complete.

Spill response and first aid equipment, and fire alarm location(s) should be identified similar to the example shown below.

Locations	Spill Equipment Content/Inventory
(Example) Loading Dock	40gl- Spill Kit including 65-gl over pack drum, universal adsorbent socks, pillows and pads, personal protective equipment, non- sparking shovel, disposable bags and ties & Emergency Response Guidebook.

#### 2) Spill Response Plan

In the event of a hazardous substance spill or release, immediately review and follow applicable OSHA SDS guidelines. If doing so does not violate those guidelines, take the following measures to keep the spill from entering sewer or storm drains, spreading off-site, or affecting human health. In all cases caution and common sense must be maintained with the primary goal being to prevent and/or limit personal injury.

Stop, contain, and clean up the chemical spill if:

- The spilled chemical and its hazardous properties have been identified.
- The spill is small and easily contained.
- Responder is aware of the chemicals' hazardous properties.

If a spill or release cannot be controlled or injuries have occurred due to the release, the following procedures should be implemented:

- Call for help or alert others of the release.
- Evacuate immediate area, and provide care to the injured- Call 911.
- If potential fire or explosion hazards exist initiate evacuation procedures- Call 911.
- Respond defensively to any uncontrolled spills:
  - Use appropriate personal protective equipment when responding to any spill.
  - Attempt to shut off the source of the release (if safe to do so).
  - Eliminate sources of ignition (if safe to do so).
  - Protect drains by use of adsorbent, booms or drain covers (if safe to do so).
- Notify onsite emergency contact(s).
- Notify other trained staff and assist with the spill response and cleanup activities.
  - Coordinate response activities with local emergency personnel (fire department).
- Be prepared to provide information to fire department, EMT, hospital or physician.
- Notify appropriate agency if a release has entered the environment. Refer to Notification and Reporting section for reporting thresholds.

#### **Evacuation Procedures**

In the event of a hazardous substance release that has the potential for fire, explosion or other human health hazards the following procedures will be implemented:

- Facility staff will be notified of evacuation by one or more of the following method(s): [Verbal, Intercom, Portable Radio, Alarm, Other].
- Notification to emergency services will be performed- Call 911.

- Facility staff will follow predetermined evacuation routes and assemble at designated areas. Evacuation maps must be displayed throughout the facility.
- Individuals responsible for coordinating evacuations must confirm if the business has been completely evacuated.
- Facility staff will be made familiar with evacuation procedures during new employee orientation, and annual trainings thereafter.
- Designated emergency response contacts will coordinate all activities with outside emergency personnel.

#### Spill Containment and Cleanup

Follow procedures identified in the SOP Spill Containment and Cleanup.

#### **Reporting a Release**

For Non-Emergencies:

Call Public Utilities Department. Public Utilities Department will follow standard procedures for reporting the incident to the appropriate entities.

#### For Emergencies:

Report incident directly to the entities listed below and as detailed on the Report and Response Flow Chart found in the SOP IDDE – Reporting and Response.

(SITE SPECIFIC PHONE NUMBER AND CONTACT NUMBERS HERE.)

When reporting a release, be prepared to provide the following information (use spill report form):

- Your name and telephone number from where you are calling;
- Exact address of the release or threatened release;
- Date, time, cause and type of incident (fire, air release, spill, etc.)
- Material and quantity of the release, to the extent known;
- Information contained on the OSHA safety data sheets;
- Current condition of the facility;
- Extent of injuries, if any; and
- Possible hazards to the public health and/or environment outside of the facility.

<u>Facility Map</u>: Include emergency exits routes, fire alarms, fire extinguishers, spill response equipment and first aid stations (eye wash, first aid kits, etc.)

#### Purpose

The purpose of this program is to ensure that LLR CONSTRUCTION, LLC continues to improve subcontractor health, safety and environmental performance and to establish a standard for pre-qualification, evaluation/selection and development of our subcontractors.

## Scope

This program applies to all subcontractors and all LLR CONSTRUCTION locations.

## **General Requirements**

All LLR CONSTRUCTION subcontractors are to be managed in accordance with this program.

The use of subcontractors must be pre-approved by LLR CONSTRUCTION. Approval requirements include:

- □ A formal safety review of the subcontractor being performed by LLR CONSTRUCTION safety department.
- □ The scope of the review was commensurate with the hazards and risk exposure.
- □ Subcontractor has been/will be oriented to the safety policies, expectations and requirements of LLR CONSTRUCTION.
- □ The subcontractor agrees to abide by our Drug and Alcohol policy and onsite safety rules throughout the duration of the work.

Any subcontractor that has a "Non-Approved" safety status will not be used on any LLR CONSTRUCTION site.

## Procedure

#### **Pre-Qualification of Subcontractors**

Subcontractors will be pre-qualified by reviewing their safety programs, safety training documents and safety statistics.

#### **Evaluation Safety Metrics**

Acceptable safety metrics will be used as criteria for prequalifying and selecting subcontractors. The safety metrics and scoring will consider:

□ LLR CONSTRUCTION Subcontractor Safety Pre-Qualification Form responses and subcontractor safety program documents review 60% (Rated from 0-60 total points)

- □ Subcontractor safety training documents review 20% (Rated from 0-20 total points)
- □ Subcontractor safety statistics review 20% (Rated from 0-20 total points)

#### **Evaluation Rating and Acceptance**

The subcontractor rating system will have five designations:

- $\Box$  Equal to or Greater than 90 points = A no restrictions.
- □ Between 85 and 89 points = B Mitigation plan must be documented and approved by LLR CONSTRUCTION Safety.
- Between 81 and 84 points = C Mitigation plan must be documented and approved by LLR CONSTRUCTION Safety; management approval in writing.
- □ Between 71 and 80 points = D Mandatory commitment meeting with senior subcontractor management present; mitigation plan

documented and approved by LLR CONSTRUCTION Safety; management approval in writing; trained subcontractor safety personnel on site during work regardless of number of workers.

 $\Box$  Less than 70 points = F - not to be used.

Once each subcontractor has been evaluated and scored, LLR CONSTRUCTION safety will provide management the scores/ranking.

LLR CONSTRUCTION reserves the right to change a subcontractor's status to "Non-Approved" if the subcontractor shows insufficient progress towards accepted mitigation plan or other agreed upon criteria.

#### Subcontractor Involvement

Contractors are required to follow or implement the work practices and systems described below while performing work at LLR CONSTRUCTION worksites:

- □ Attend a safety orientation, pre-job meeting or kick-off meeting provided by LLR CONSTRUCTION prior to any work beginning
- □ Monitor employees for substance abuse and report nonconformities to LLR CONSTRUCTION
- □ Ensure personnel have the required training and competency for their

work

- □ Participate in LLR CONSTRUCTION tailgate safety meetings, job safety analysis or hazard assessments and on the job safety inspections.
- □ Perform a pre-job safety inspection that includes equipment
- □ Participate in the BBS hazard reporting system
- □ Report all injuries, spills, property damage incidents and near misses
- □ Comply with onsite and Owner Client safety rules
- □ Implement LLR CONSTRUCTION safety practices and processes as applicable
- □ Clean up and restore the worksite after the job is over
- □ Ensure compliance with regulations at all times
- □ Post job safety performance reviews shall be conducted for subcontractors.

SEE NEXT PAGE FOR SUB PRE-QUAL FORM

## SUBCONTRACTOR SAFETY PRE-QUALIFICATION FORM

GENERAL INFORMATION					
1. Subcontractor In	formation:				
Subcontractor Name:		Telephone Nu	umber:		
Street Address: Fax Number:					
City:		Website Addr	ess:		
Province/State:		Postal Code/Z	Zip:		
2. Officers					
President:					
Vice President:					
Treasurer:					
3. How many years present firm's name?	has your orga	nization been	in business under your		
4. Parent Firm Nan	ne:				
City:	Province/Sta	ate:	Postal Code/Zip:		
Subsidiaries:					
6. Contact for Insu	rance Informa		se enter date as mm/dd/yyyy) Email:		
7. Insurance Carrie	er(s):		1		
Name	Type of Cov	erage	Telephone		
your workers compense Account Number: 9. Contact for reque Title: Tel 10. Contractor Evalua	sation insuran esting bids: ephone:	Tax: pleted by:	se enclose a copy of Email:		
Title: Tel	ephone:	fax:	Email:		
HEALTH, SAFE Health, Safety and Er			PERFORMANCE		

Provide the following data for your firm using your record keeping forms from the past three (3) years.

If the data is not available please reply with Not Available - N/A.

## **Safety Performance Definitions and Guidance**

- Hours Worked Employee hours worked last three years. Please report actual а scheduled total hours worked and total overtime hours worked. If actual hours worked are not available for certain individuals hours worked may be estimated. A default of 2000 hours per individual per year can be used as an estimate.
- **Recordable Incidents** Recordable cases are those that involve any workb. related injury or illness, including death but excluding first-aid injuries.
- Lost Workday Cases A Lost Workday Case is a medical case that involves C. fatalities, days away from work cases or restricted work activity cases.
  - Days Away from Work Case Where the employee is away from scheduled work day one day or more after the day of a work related injury or illness. The day of the incident does not count as lost workday. Stop count when total days away and restricted duty days reach 180 or employee leaves the firm.
  - <u>Restricted Work Activity Case</u> Where the employee as result of workrelated injury or illness:
    - Assigned to another job on a temporary or permanent basis or Worked at their permanent job but less than a full day
    - ٥
    - Could not perform routine functions associated with their permanent ٥ iob

The day of the incident is not counted as a Restricted Duty day. Stop count when total days away or restricted duty days reach 180 or if employee leaves the firm.

- Motor Vehicle Incident A motor vehicle is any mechanically or electrically d. powered devices (excluding one moved by human power), upon which or by which any person or property may be transported upon a land roadway.
  - <u>Motor Vehicle Incident</u> Includes any event involving a motor vehicle that is owned, leased or rented by the firm that results in death, injury or property damage unless the vehicle is properly parked.

Health and Safety Incidents	2019	2018
a. Total Hours Worked		
<ul> <li><b>b.</b> Total Recordable Incidents</li> <li># Fatalities</li> <li># Medical Aids</li> </ul>		
# Days Away from Work		
Cases # Restricted Work		
Activity Cases		
c. Total Recordable Incident Rate (TRIR)		
<u>Total # Recordable Incidents x</u>		

<u>200,000</u> Total # Hours worked		
d. Lost Workday Cases (LWC) # Fatalities # Days Away from Work Case # Restricted Work Activity Case		
e. Lost Workday Incident Rate (LWDR) <u>Total # Lost Workday Incidents x</u> <u>200,000</u> Total # Hours Worked HEALTH, SAFETY AND ENVIRONM		
Health and Safety Incidents - continued	2019	2018
nearth and Safety Incidents - continued	2019	2010
f. Motor Vehicle Incidents (MVI) # Motor Vehicles Incidents #		
Kilometers/Miles driven		
<b>g.</b> Motor Vehicle Incident Frequency Rate (MVIFR) Total # of Firm's Motor Vehicle Incidents x 1,000,000 Total # Kilometers/Miles driven		
Environmental Incidents	2019	2018
<u>Total # Spills to Water</u> a. Petroleum Spills		
# spills Sheen (est. volume as 0.1 bbl.		
To < 1bbl. # spills 1 bbl. To < 100 bbls.		
# spills 100 bbls. or more b. Chemical Spills		
# spills 1 bbl./160 kg. to < 100 bbls./16,000 kg. # spills 100 bbls./16,000 or more		
<u>Total # Spills to Land</u> a. Petroleum spills		
# spills 1 bbl. To < 100		
bbls. # spills 100 bbls.		
or more <b>b.</b> Chemical Spills # spills 1 bbl./160 kg. to < 50 bbls./8,000 kg # spills 50 bbls./8,000 kg. or more		
Enforcement Actions	2019	2018

Citations			
# Health and			
Safety # Environmental			
Please provide details			
Fines			
Total # Fines			
Total \$\$ Paid Please provide details			
HEALTH, SAFETY AN	ND ENVIRONMEN'	TAL MANAG	EMENT
Highest ranking HSE profes	sional in the firm:		
Name/Title:	Email:		Telephone Numbers
Do you have a written Basic Program?	e Safety / HSE	Yes	No
Does your Basic Safety/HSE the following? (Place a check corresponding "Yes" and "N	kmark in the		
HSE Policy statement signed	by management		
Management Involvement and	d Commitment		
Hazard Identification and Ris	k Control		
Rules and Work Procedures			
Incident and Accident Reporti	ng and Investigation	l	
Training			
Communications			
Does the program include w and procedures such as? Permit to Work including Isola Confined Space Entry	-		
Injury and Illness Recording Fall Protection			
Personal Protective Equipmen	nt		
Portable Electrical/Power Tool	ls		
Motor Vehicle/Driving Safety			
Compressed Gas Cylinders			
Electrical Equipment Groundi	ing Assurance		
Powered Industrial Vehicles ( Etc.)	Cranes, Forklifts,		

Housekeeping		
Accident/Incident Reporting and Investigations		
Unsafe Condition Reporting		
Emergency Preparedness, Including Evacuation Plan		
Waste Disposal and Pollution Prevention		
Regular Workplace Inspection / Audits		
Do you have a Drug and Alcohol program?		
Pre-employment testing		
Reasonable cause testing		
Post-rehabilitation/return to work testing		
HEALTH, SAFETY AND ENVIRONMENT	AL MANAGE	MENT
Do you have a Job Safety Analysis (JSA)	Yes	No
process in place?		
Is there a Root Cause Analysis process used for investigations, near misses, environmental spills?		
Is there a Management of Change (MOC)		
Process in place?		
Do you have programs for the		
following?		
<ul> <li>a. Respiratory Protection</li> <li>b. Where applicable, have employees been: <ul> <li>Trained</li> <li>Fit tested</li> </ul> </li> </ul>		
Medically approved		
<ul> <li>c. Hazard communication/WHMIS</li> <li>d. Programs for potential high hazard work such as Highly Hazardous Chemicals; Explosives and Blasting Agents</li> </ul>		
Do you have a corrective action process for		
addressing individual/employee safety and		
health performance deficiencies?		
a. Do you conduct medical examinations		
for:		
<ul> <li>Pre-placement Job Capability</li> <li>Pulmonary</li> <li>Respiratory</li> </ul>		
b. Describe how you intend to provide first		
aid and other medical services while on-		

site.			
Do you have personnel trained to perf aid and CPR?	orm first		
Personal Protective Equipment (PPE)			
a. Is applicable PPE provided for			
<ul><li>employees?</li><li>b. Do you have a program to assure that l inspected and maintained?</li></ul>	PPE is		
HSE Meetings			Freque
<ul> <li>a. Do you hold site HSE meetings for?</li> <li>Field Supervisors</li> <li>Employees</li> <li>New Hires</li> <li>Subcontractors</li> </ul>			ncy
HEALTH, SAFETY ANI	) ENVIRO	ONMENTAL	
MANAGEMENT			
Inspections and Audits			Frequency
a. Do you conduct internal HSE Inspections?	Yes	No	
b. Do you conduct internal HSE program audits?	Yes	No	
c. Are corrections or deficiencies to internal HSE program or equipment communicated and documented until closure?	Yes	No	
Equipment and Materials:			
<ul> <li>a. Do you own or lease Equipment and Materials? If yes, please complete the following questions:</li> <li>b. Do you have a system for establishing</li> </ul>	ıg	Yes	No
applicable health, safety, and environmental specificatio acquisition of materials and equipment c. Do you conduct inspections on operation	nt?	Yes	No
equipment (e.g., cranes, forklifts) in complia with regulatory requirement		Yes	No
d. Do you maintain operating equipment compliance with regulatory requirement	ents?	Yes	No
e. Do you maintain the applicable inspec maintenance certification records for operating equipment?	tion and	Yes	No
f. Do you document corrections or deficie from equipment inspections and main	encies tenance?	Yes	No
Subcontractor Management			

		Yes	N	
is yes, please complete the following questions:		res	IN	0
b. Do you have a written contractor safety management process?		Yes	N	0
c. Do you use HSE performance criteria in selection of subcontractors?		Yes	N	0
d. Do you evaluate the ability of subcontractors	s to			
comply with applicable HSE requirements part of the selection process?	as	Yes	N	0
e. Do your subcontractors have a written HSE		Yes	N	0
Program?				
f. Do you include your subcontractors				
in:				
HSE Orientation				
<ul> <li>HSE Meetings</li> <li>HSE Equipment Inspections</li> </ul>				
HSE Program Audits				
Are corrections or deficiencies				
documented				
HEALTH, SAFETY AND ENVIRONME	ENTA	L MANAG	EMENT	
Employee and Trades Training				
a. Have employees been trained in		V	N.	_
appropriate job skills? b. Are employees' job skills certified where	Yes 🗖		No	
required by regulatory or industry		Yes	No	
consensus standards?				
c. List trades/crafts which have been certified:				
Health, Safety and Environmental Orientation	Ne	w Hires	Superv	visors
a. Do you have an HSE Orientation				Γ
Program for new hires and newly hired or promoted supervisors?	Yes	No	Yes	No
b. Does the program provide				
instruction on the following:				
•New worker orientation				
•Safe Work Practices				
•Safety Supervision				
•Toolbox meetings				
• Emergency Procedures				
• First Aid Procedures				
• Fire Protection and Prevention			1	1
Fire Protection and Prevention     Safety Intervention				
<ul> <li>Fire Protection and Prevention</li> <li>Safety Intervention</li> <li>Hazard Communication/WHMIS</li> </ul>		Vaa	N	<u> </u>
•Fire Protection and Prevention •Safety Intervention •Hazard Communication/WHMIS Health, Safety and Environmental Training		Yes	No	)
Fire Protection and Prevention     Safety Intervention     Hazard Communication/WHMIS     Health, Safety and Environmental     Training     a. Do you know the regulatory HSE training		Yes	No	)
•Fire Protection and Prevention •Safety Intervention •Hazard Communication/WHMIS Health, Safety and Environmental Training		Yes	No	)

c.	Do you have a specific HSE training program for supervisors?
<b>Tra</b> a. b.	ning RecordsDo you have HSE and training records for your Employee's?Do the training records include the following:• Employee identification• Date of training• Name of trainer• Method used to verify understanding
Hov	do you verify understanding of training? (Check all that apply)
W	ritten test Oral test Performance test Job Monitoring Other (List)

#### WELDING, CUTTING & HOT WORK

#### Purpose

The purpose of this program is to assure a safe work environment during welding, cutting, and hot work operations.

#### Scope

This program is applicable to all employees directly involved or assisting in the welding, cutting and hot work operations. When work is performed on a no owned or operated site, the operator's program shall take precedence, however, this document covers LLR Construction, LLC's employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent. Operators of equipment should report any equipment defect or safety hazards and discontinue use of equipment until its safety has been assured. Repairs shall be made only by qualified personnel.

If fire hazards cannot be taken to a safe place or guards cannot be used to confine heat, sparks, slag and protect the immovable fire hazards, the welding and cutting shall not be performed.

## Definitions

Welding/Hot Work Procedures - any activity which results in sparks, fire, molten slag, or hot material which has the potential to cause fires or explosions.

Examples of Hot Work - Cutting, Brazing, Soldering, Thawing Pipes, Grinding, using an electric tool in a hazardous area and Welding.

Special Hazard Occupancies - any area containing Flammable Liquids, Dust Accumulation, Gases, Plastics, Rubber and Paper Products.

Hazards - includes, but not limited to the following; fires and explosions, skin burns, welding "blindness", and respiratory hazards from fumes and smoke.

#### **Key Responsibilities**

#### **Managers and Supervisors**

- □ Determine if its property is safe for welding and cutting operations.
- □ Establish safe areas for welding and cutting operations.
- □ Provide training for all employees whose task includes heat, spark or flame producing operations such as welding, brazing, or grinding.
- $\hfill\square$  Develop and monitor effective hot work procedures.

- $\Box$  Provide safe equipment for hot work.
- □ Provide proper and effective PPE for all hot work.
- $\Box$  Monitor all hot work operations.
- □ Ensure all hot work equipment and PPE are in safe working order.
- □ Allow only trained and authorized employees to conduct hot work and conduct inspections of the hot work area before operations begin.
- □ Ensure permits are used for all hot work outside authorized areas.

#### **Employees**

- □ Follow all hot work procedures.
- □ Properly use appropriate hot work PPE.
- □ Inspect all hot work equipment before use.
- □ Report any equipment problems or unsafe conditions.

#### Procedure

#### General

A hot work permit must be completed before performing hot work. Precautions that are to be taken shall be in the form of a written permit. Before cutting or welding is permitted the area shall be inspected and a written permit shall be used to authorize welding and cutting operations.

Where practicable all combustibles shall be relocated at least 35 feet from the work site. Where relocation is impractical, combustibles shall be protected with flameproof covers, shielded with metal, guards, curtains, or wet down the material to help prevent ignition of material.

Ducts, conveyor systems, and augers that might carry sparks to distant combustibles shall be protected or shut down.

Where cutting or welding is done near walls, partitions, ceilings, or openings in the floor (grating, manholes, etc.), fire-resistant shields or guards shall be provided to prevent ignition.

If welding is to be done on a metal wall, partition, ceiling, or solid decking/flooring, precautions shall be taken to prevent ignition of combustibles on the other side, due to conduction or radiation of heat. Where combustibles cannot be relocated on the opposite side of the work, a fire watch person shall be provided on the opposite side of the work.

Welding shall not be attempted on a metal partition, wall, and ceiling or decking/flooring constructed of combustible sandwich panels.

Cutting or welding on pipes or other metal in contact with combustible walls, partitions, floors, ceilings, or roofs shall not be undertaken if the work is close enough

to cause ignition by combustion.

Cutting or welding shall not be permitted in the following situations:

- □ In areas not authorized by management.
- □ In sprinkled buildings while such protection is impaired.
- □ In the presence of potentially explosive atmospheres, e.g. flammables.
- □ In areas near the storage of large quantities of exposed, readily ignitable materials.
- □ In areas where there is dust accumulation of greater than 1/16 inch within 35 feet of the area where welding/hot work will be conducted.
- $\hfill All dust accumulation shall be cleaned up before welding or hot work is permitted.$

Whenever welding or cutting is performed in locations where other than a minor fire might develop or any of the conditions mentioned above cannot be met, a fire watch shall be provided.

- □ The fire watch shall be provided during and for a minimum of 1/2 hour past the completion of the welding project.
- □ The fire watch shall be trained in the use of fire extinguishers and the facility's alarm system.
- □ During this time the fire watch will have appropriate fire extinguishers readily available.
- □ Suitable extinguishers shall be provided and maintained ready for instant use.
- □ A hot-work permit will be issued on all welding or cutting outside of the designated welding area.

## **Fire Prevention Measures**

A designated welding area shall be established to meet the following requirements:

- □ Floors swept and cleaned of combustibles within 35 feet of work area.
- □ Flammable and combustible liquids and material will be kept 35 feet from work area.
- $\hfill\square$  Adequate ventilation providing 20 air changes per hour.
- □ At least one 10 pound dry chemical fire extinguisher shall be within access of 35 feet of the work area.
- □ Protective dividers such as welding curtains or noncombustible walls will be provided to contain sparks and slag to the combustible free area.

Requirements for welding conducted outside the designated welding area:

- □ Portable welding curtains or shields must be used to protect other workers in the welding area.
- □ A hot-work permit must be completed and complied with prior to initiating welding operations.
- $\Box$  Respiratory protection is mandatory unless an adequate monitored airflow

away from the welder and others present can be established and maintained.

- □ Plastic materials must be covered with welding tarps during welding procedures.
- □ Fire Watch must be provided for all hot-work operations.

After welding operations are completed, the welder shall mark the hot metal or provide some other means of warning other workers.

## **Confined Space**

- □ A space that Is large enough and so configured that an employee can bodily enter and perform assigned work;
- □ Has limited or restricted means for entry or exit (for example, tanks, vessels, coolers, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry); and
- $\hfill\square$  Is not designed for continuous occupancy.

Refer to LLR Construction's Confined Space Program before commencing any welding, cutting, and/or brazing operations in an area meeting the requirements of a confined space.

Ventilation is a prerequisite to work in confined spaces.

When welding or cutting is being performed in any confined spaces, the gas cylinders and welding machines shall be left on the outside. Before operations are started, heavy portable equipment mounted on wheels shall be securely blocked to prevent accidental movement.

When a welder must enter a confined space through a manhole or other small opening, means shall be provided for quickly removing him in case of an emergency.

- □ When safety belts and lifelines are used for this purpose, they shall be so attached to the welder's body that it cannot be jammed in a small exit opening.
- □ An attendant with a preplanned rescue procedure shall be stationed outside to observe the welder at all times and be capable of putting rescue operations into effect.

When arc welding is to be suspended for any substantial period of time, such as during lunch or overnight, all electrodes shall be removed from the holders and the holders carefully located so that accidental contact cannot occur and the machine shall be disconnected from the power source.

In order to eliminate the possibility of gas escaping through leaks of improperly closed valves, when gas welding or cuffing, the torch valves shall be closed and the fuel-gas

and oxygen supply to the torch positively shut off at some point outside the confined area whenever the torch is not to be used for a substantial period of time, such as during lunch hour or overnight. If practical, the torch and hose shall also be removed from the confined space.

When welding must be performed in a space entirely screened on all sides, the screens shall be so arranged that no serious restriction of ventilation exists. It is desirable to have the screens so mounted that they are about 2 feet (0.61 m) above the floor unless the work is performed at so low a level that the screen must be extended nearer to the floor to protect nearby workers from the glare of welding.

A fixed enclosure shall have a top and not less than two sides which surround the welding or cutting operations, and a rate of airflow sufficient to maintain a velocity away from the welder of not less than 100 linear feet (30 m) per minute.

All welding and cutting operations carried on in confined spaces shall be adequately ventilated to prevent the accumulation of toxic materials or possible oxygen deficiency. This applies not only to the welder, but also to helpers and other personnel in the immediate vicinity. All air withdrawn will be replaced with air that is clean.

In circumstances for which it is impossible to provide such ventilation, airline respirators or hose masks approved for this purpose by the National Institute for Occupational Safety and Health (NIOSH) will be provided. In areas immediately hazardous to life, a full-face piece, positive pressure, self-contained breathing apparatus or a combination full-face piece, positive pressure supplied-air respirator with an auxiliary, self-contained air supply approved by NIOSH must be used.

Where welding operations are carried on in confined spaces and where welders and helpers are provided with hose masks, hose masks with blowers or self-contained breathing equipment, a worker shall be stationed on the outside of such confined spaces to ensure the safety of those working within.

#### **Fumes, Gases and Dust**

Fumes produced by some welding processes can be toxic and may require source extraction. An assessment of the work to be performed must be completed before each job is undertaken. Fumes generally contain particles from the material being welded. Welding fumes can have an acute effect on the respiratory system.

Any welding, cutting or burning of lead base metals, zinc, cadmium, mercury, fluorides, beryllium or exotic metals or paints not listed here that could produce dangerous fumes shall have proper ventilation or respiratory protection. This includes inert-gas metal-arc welding or oxygen cutting of stainless steel.

Welders and helpers will refer to LLR Construction's Respiratory Protection Program

to determine the appropriate respiratory protection to be used during welding operations.

All welding and cutting operations shall be adequately ventilated to prevent the accumulation of toxic materials. This applies not only to the welder, but also to helpers and other personnel in the immediate vicinity.

#### **Personal Protection**

Helmets and hand shields shall be made of a material, which is an insulator for heat and electricity. Helmets, shields, and goggles shall not be readily flammable and shall be capable of withstanding sterilization.

Helmets and hand shields shall be arranged to protect the face, neck and ears from direct radiant energy from the arc.

Helmets shall be provided with filter plates and cover plates designed for easy removal.

All parts shall be constructed of a material, which will not readily corrode or

discolor the skin. Goggles shall be ventilated to prevent fogging of the lenses as

much as practicable.

All glass for lenses shall be tempered, substantially free from scratches, air bubbles, waves and other flaws. Except when a lens is ground to provide proper optical vision correction, the front and rear surfaces of lenses and windows shall be smooth and parallel.

Lenses shall bear some permanent distinctive marking which may readily identify the source and shade.

The following is a guide for the selection of the proper shade numbers. These recommendations may be varied to suit the individual's needs.

Welding Opera	Shade Number	
Shielded metal — arc welding 1/16, 3/3	10	
Gas-shielded arc welding (nonferrous) electrodes	11	
Gas-shielded arc welding (ferrous) 1/16, 3/32, 1/8, 5/32 electrodes		
	7/32,1/4 inch electrodes 5/16, 3/8-inch electrodes	12
Shielded metal arc welding: 3/16	14	
Atomic hydrogen welding	10 - 14	
Carbon arc wel	14	

Soldering	2
Torch brazing	3 or 4
Light cutting, hp to 1 inch	3 or 4
Medium cutting, 1 inch to 6 inches	4  or  5
Healy cutting, 6 inches or over	5 or 6
Gas welding (light) up to 1/8 inch	4  or  5
Gas welding (medium) 1/8 - 1/2 inch	5 or 6
Gas welding (heavy) 1/2 inch or over	6 or 8

NOTE:

In gas welding or oxygen cutting where the torch produces a high yellow light, it is desirable to use a filter or lens that absorbs the yellow or sodium line in the visible light of the operation. All filter lenses and plates shall meet the test for transmission of radiant energy prescribed in ANSI Z87.1 — 1968 — American National standard Practice for Occupational and Educational Eye and face Protection. Where the work permits the welder to be enclosed in an individual booth painted with a finish of low reflectivity such as zinc oxide (an important factor for absorbing ultraviolet radiation) and lamp black, or shall be enclosed with noncombustible screens similarly painted. Booths and screens shall permit circulation of air at floor level. Workers or other persons adjacent to the welding areas shall be protected from the rays by noncombustible or flameproof screens or shields or shall be required to wear appropriate goggles.

Adequate hand protection and clothing must be used to protect the body from welding hazards.

## **Cleaning Compounds**

In the use of cleaning materials, because of their possible toxicity or flammability, appropriate precautions such as manufacturer instructions shall be followed.

- □ Degreasing and other cleaning operations involving chlorinated hydrocarbons shall be so located that no vapors from these operations will reach or be drawn into the atmosphere surrounding any welding operation.
- □ In addition, trichloroethylene and perchloroethylene shall be kept out of atmospheres penetrated by the ultraviolet radiation of gas-shielded welding operations.

Oxygen cutting, using a chemical flux, iron powder or gas shielded arc cutting for stainless steel shall be performed using mechanical ventilation adequate to remove the fumes generated.

#### Cylinders

Compressed gas cylinders shall be DOT-approved and legibly marked near the shoulder of the cylinder for the purpose of identifying the gas content with either the chemical or trade name of the gas.

- □ All compressed gas cylinder connections must comply with ANSI B57. 1-1965 Standards.
- □ Compressed gas cylinders shall be secured in an upright position at all times except, if necessary, for short periods of time while cylinders are actually being hoisted or carried.

All cylinders shall be kept away from sources of heat and from radiators and piping systems that may be used for grounding purposes. Cylinders and cylinder valves including couplings and regulators shall be kept free from oily or greasy substances and must not be handled with gloves or rags in the same condition.

Stored oxygen cylinders shall be kept at least 20 feet from the fuel gas cylinders or combustible materials, especially oil or grease, or separated by a non-combustible barrier at least 5 feet high with a fire rating of at least one-half hour. All empty cylinders shall have closed valves. Valve protection caps shall always be in place and hand-tight except when cylinders are in use or connected for use.

Cylinders shall not be kept in unventilated enclosures such as lockers and cupboards.

Fuel gas cylinders stored inside buildings shall be limited to a total capacity of 2000 cubic feet (300 pounds) of liquefied petroleum gas, except for those in actual use or attached ready for use.

All acetylene cylinders shall be stored valve-end up.

Assigned storage spaces shall be located where cylinders cannot be knocked over or damaged by falling objects or subject to tampering by unauthorized persons.

- □ Back flow protection shall be provided by an approved device that will prevent oxygen from flowing into the fuel-gas system or fuel from flowing into the oxygen system.
- □ An approved device that will prevent flame from passing into the fuel-gas system shall provide flashback protection.
- An approved pressure-relief device set at the appropriate pressure shall provide backpressure protection.

Special care must be taken when transporting gas cylinders:

- $\hfill\square$  Cylinders must be secured with valve cap installed.
- □ Cylinders shall not be lifted by the valve protection caps, the regulators must be removed

and cylinders shall not be dropped or permitted to strike each other.

- □ Removed regulators must be carried in the cab of the vehicle.
- □ Cylinders shall not be tampered with nor should any attempt be made to repair them.
- □ They shall be handled carefully rough handling, knocks, or falls are liable to damage the cylinder, valve or safety device and cause leakage.

Safety devices shall not be tampered with.

## Arc Welding and Cutting

All personnel operating, installing, and maintaining welding equipment shall be qualified or trained to operate and maintain such equipment.

- □ All workmen assigned to operate or maintain equipment shall be familiar with and electrical welding equipment shall be chosen for safe operation and comply with applicable Requirements for Electric Arc Welding Standards to include: 29 CFR 1910.254, 29 CFR 1910.252 (a)(b) (c) and if gas shielded arc welding is done the must be familiar with the American Welding Society Standard A6-1-1966.
  - Arc welding equipment must be designed to meet conditions such as exposure to corrosive fumes, excessive humidity, excessive oil vapor, flammable gasses, abnormal vibration or shock, excessive dust and seacoast or shipboard conditions.
  - $\circ~$  It shall be operated at recommended voltage in accordance to the manufacturer recommendations.
  - All leads shall be periodically inspected and replaced if insulation is broken or splices are unprotected.
  - Leads shall not be repaired with electrical tape.
- □ All ground connections shall be checked to determine that they are mechanically strong and electrically adequate for the required current.

A disconnecting switch or controller shall be provided at or near each welding machine along with over current protection.

All direct current machines shall be connected with the same polarity and all alternating current machines connected to the same phase of the supply circuit and with the same polarity.

- □ To prevent electrical contact with personnel, all electrode holders shall be placed where they do not make contact with persons, conducting objects or the fuel of compressed gas tanks.
- $\Box$  All cables with splices within 10 feet of the holder shall not be used.

If the object to be welded or cut cannot readily be moved, all moveable fire hazards should be removed. If an object to be welded or cut cannot be moved and if all the hire hazards cannot be removed, then guards shall be used to confine the heat sparks and slag and to protect the immovable fire hazards.

### **Resistance Welding**

All personnel operating, installing, and maintaining welding equipment shall be qualified or trained to operate and maintain such equipment.

- □ Voltage, interlocks, guarding, grounding and shields shall be in accordance with manufacturer recommendations.
- □ Precautions such as flash guarding, ventilation and shields shall be provided to control flashes, toxic elements and metal fumes.

If the object to be welded or cut cannot readily be moved, all moveable fire hazards should be removed.

#### **Transmission Pipeline**

When arc welding is performed in wet conditions, or under conditions of high humidity, special protection against electric shock shall be supplied.

Pressure testing:

- □ In pressure testing of pipelines, the workers and the public shall be protected against injury by the blowing out of closures or other pressure restraining devices.
- □ Protection shall be provided against expulsion of loose dirt that may have become trapped in the pipe.

The welded construction of transmission pipelines shall be conducted in accordance with the Standard for Welding Pipelines and Related Facilities, API Std. 1104-1998.

## **Oxygen Fuel Gas Welding and Cutting:**

Only approved apparatuses such as torches, regulators or pressure-reducing valves, setting generators and manifolds shall be used:

- □ Mixtures of fuel gases and air or oxygen may be explosive and must be guarded against.
- □ All hoses and hose connections shall comply with the Compressed Gas Association and Rubber Manufacturers' Associations' applicable standards.
- □ Workers in charge of the oxygen or fuel-gas supply equipment, including generators, shall be instructed and judged competent by the LLR CONSTRUCTION'Sbefore being left in charge.

If the object to be welded or cut cannot readily be moved, all moveable fire hazards should be removed.

## **Fire Watch Requirements**

A fire watch shall be under these conditions as a minimum and when welding, cutting, brazing and/or soldering is performed near combustible materials and/or locations where fire may develop:

- $\hfill\square$  Locations where other than a minor fire might develop.
- □ Combustible materials are closer than 35 feet to the point of operation.
- □ Combustibles that are 35 feet or more away but are easily ignited.
- □ Wall or floor openings within a 35 feet radius of exposed combustible materials.
- □ Combustible materials are adjacent to the opposite side of metal partitions, ceilings or roofs.

Fire watch personnel shall be maintained at least a half an hour after welding or cutting operations have been completed and fire watchers shall have fire extinguishers readily available.

#### **First Aid Equipment**

First aid equipment shall be available at all times. All injuries shall be reported as soon as possible for medical attention. First aid shall be rendered until medical attention can be provided.

## Training

Training shall include:

 $\Box$  Position Responsibilities

- □ Cutters, welders and their supervisors must be suitably trained in, hot work, the safe operations of their equipment and the safe use of the process.
- □ Fire Watch Responsibilities specifically, the fire watch must know:
  - That their ONLY duty is Fire Watch.
  - When they can terminate the watch.
  - How to use the provided fire extinguisher(s).
  - Be familiar with facilities and how to activate fire alarm, if fire is beyond the incipient stage.
  - Operator Responsibilities
  - Contractor Responsibilities
  - Documentation requirements
  - Respirator Usage requirements
  - Fire Extinguisher training.

## LOCKOUT/TAGOUT POLICY

## Policy

All employees will be protected from injuries caused by **unexpected** energizing or start up of machines or equipment, or release of stored energy during service, repair, maintenance, operation, and associated activities. This policy establishes **minimum** performance requirements for the control of such potentially hazardous conditions. Potential energy may include any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy. This will be accomplished by locking out and tagging out energy isolating devices, and otherwise disabling machines or equipment to prevent unexpected energizing, start-up or release of stored energy.

Repairing and/or maintaining equipment during normal production operations are covered by this policy only if:

- A. An employee is required to remove or bypass a guard or other safety device; or
- B. An employee is required to place any part of his or her body into an area on a machine or piece of equipment where work is actually performed upon the material being processed (point of operation) or where an associated danger zone exists during a machine operating cycle.

This policy does not apply to the following:

- C. Work on cord and plug connected electric equipment for which exposure to the hazards of unexpected energizing or start up of the equipment is controlled by the unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing maintenance or repair.
- D. Hot tap operations involving transmission and distribution systems when they are performed on pressurized pipelines, provided that (1) continuity of service is essential; (2) shutdown of the system is impractical; (3) documented procedures are followed, and (4) special equipment is used which will provide proven effective protection for employees.

## Definitions

- □ Affected Employee: An employee whose job requires him/her to operate or use a machine or equipment on which maintenance or repair is being performed under this lockout/tagout policy, or whose job requires him/her to work in an area in which such maintenance or repair is being performed.
- □ Authorized Individual: A knowledgeable individual to whom the

supervisor hasgiven the authority and responsibility to lock or implement a lockout/tagout procedure on machines or equipment to perform maintenance or repair. An authorized individual and an affected employee may be the same person when the affected employee's duties also include performing maintenance or repair of a machine or equipment which must be locked and tagged out. The locks and/or tags shall identify the authorized individual applying the device.

- □ **Lockout Device**: A device that utilizes a lock and key to hold an energy isolating device in the safe position and prevents a machine or equipment from being energized.
- □ **Lockout/Tagout**: The placement of a lock and tag on the energy isolating device in accordance with an established procedure, indicating that the energy isolating device shall not be operated until removal of the lock/tag in accordance with an established procedure. (The term "lockout/tagout requires the combination of a lockout device and a tagout device).
- □ Maintenance and Repair: Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining machines or equipment. These activities include but are not limited to lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected start-up of the equipment or release of hazardous energy.
- □ Shall: The word "shall" always implies a mandatory requirement.
- □ **Tagout Device**: A prominent warning device, such as a tag, that can be securely attached to equipment or machinery for the purpose of warning personnel not to operate an energy isolating device and identifying the applier or authority who has control of the procedure.

## Responsibilities

#### Supervisor (or Acting Supervisor)

- □ Maintains awareness of all aspects of LLR Construction LLC's lockout/tagout policy.
- □ Ensures that all employees under their supervision understand the requirements for compliance with this policy and are made aware of the lockout/tagout procedure and are issued appropriate locks/tags.
- □ Conducts a periodic inspection of the energy control procedure at least annually to ensure that the procedure and the requirements of this policy are being followed.
- $\hfill\square$  Certifies that the periodic inspections have been performed.

#### Employee

□ Maintains awareness of all aspects of the lockout/tagout policy and

complies with all procedures.

## Safety Coordinator/Director

- □ Provides necessary employee training for lockout/tagout procedures.
- □ Conducts periodic inspections of work sites to ensure compliance with lockout/tagout procedures.
- □ Provides guidance regarding the applicability of the lockout/tagout policy.
- $\hfill\square$  Approves/disapproves exceptions of the lockout/tagout policy.

## General

#### Simple Lockout/Tagout

- Implementation of lockout/tagout shall be performed only by authorized employees.
- Before any employee performs any maintenance or repair of a machine or equipment where unexpected start up or release of stored energy could occur and cause injury, the machine or equipment shall be isolated, and rendered inoperative.
- If an energy-isolating device is capable of being locked out, then this policy requires that a lockout and tagout be utilized. If an energy-isolating device is not capable of being locked out, then a tagout shall be utilized.
- Whenever major replacement, repair, renovation or modification of machines or equipment is performed, and whenever new machines or equipment are installed, energy isolating devices for such machines or equipment shall be designed to accepta lockout device.
- Procedures during repairs on above devices shall include at least two persons. One person shall be at the disconnect area, while the other person performs repair and/or testing.
- The machine or equipment shall be turned off or shutdown using the procedures established for the machine or equipment. An orderly shutdown must be utilized to avoid any additional or increased hazard(s) to employees as a result of the equipment stoppage.
- Prior to starting work on machines or equipment that have been locked or tagged out, the authorized employee shall verify that isolation & deenergization of the machine or equipment have been accomplished. **Group Lockout/Tagout**
- In the case of a group lockout/tagout, each employee must affix his/her personal LOTO device to the group lockout/tagout device before engaging in the servicing and maintenance operation. The supervisor (appointed by LLR Safety Director) in charge of the group lockout/tagout must not remove the group LOTO device until each employee in the group has removed his/her personal device.

- The authorized employee should ascertain the exposure status of individual group members. Each employee shall attach a personal lockout or tagout device to the group's device while he/she is working & then remove it when finished.
- Same rules apply at shift changes.

## **Energy Control Procedure**

- LLR Construction shall develop, document and utilize procedures to control potentially hazardous energy when employees are engaged in the activities covered by this policy.
- The procedures shall clearly and specifically outline the scope, purpose, authorization, rules, and techniques to be utilized for the control of hazardous energy, and the means to enforce compliance including, but not limited to the following:
  - A specific statement of the intended use of the procedure;
  - Specific procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy;
  - Specific procedural steps for the placement, removal and transfer of lockout devices or tagout devices and the responsibility for them; and
  - Specific requirements for testing a machine or equipment to determine and verify the effectiveness of lockout devices, tagout devices, and other energy control measures.

## **Protective Materials and Hardware**

- Lockout and tagout devices shall be provided by LLR Construction and shall be the only authorized device(s) used for lockout/tagout of energy devices and shall not be used for other purposes. Each lockout device is to be stamped with the employees name and color-coded to indicate type of trade or craft. Each employee will be sued two keys and no two key configurations shall be the same. No one else shall have duplicate keys.
- Tagout devices, including their means of attachment, shall be substantial enough to prevent inadvertent or accidental removal. Attachment means shall be a one- piece, nylon cable tie which shall be non-reusable, self- locking and non- releasable with a minimum unlocking strength of no less than 50 pounds.

## **Periodic Inspections**

- The periodic inspections shall be performed by an authorized LLR Construction Supervisor. The inspections shall be designed to correct any deviations or inadequacies observed.
- Where lockout is used for energy control, the periodic inspection shall include a review, between the inspector and each authorized employee, of that employee's responsibilities under the energy control procedure being

inspected.

- The inspector shall certify that the periodic inspections have been performed. The certification shall identify the machine or equipment on which the energy control procedure was being utilized, the date of the inspection, the employees included in the inspection and the person performing the inspection.
- Copies of the inspection report shall be sent to the Safety Coordinator/Director.

## Training and Communication

LLR Construction will provide joint training to ensure that the purpose and function of the energy control program is understood by employees and that the knowledge and skills required for the safe application, usage, and removal of energy controls are required by employees. The training will include the following:

- Train each authorized employee in the recognition of hazardous energy sources, the type and magnitude of the energy available in the workplace, and methods and means necessary for energy isolation and control.
- Before an authorized or affected employee turns off a machine or equipment, the authorized employee shall have knowledge of the type & magnitude of the energy, the hazards of the energy to be controlled, & the methods or means to control the energy.
- Instruct each affected employee in the purpose and use of the energy control procedure.
- Instruct all other employees whose work operations are or may be in an area where energy control procedures may be utilized, about the procedure, and about the prohibition relating to attempts to restart or reenergize machines or equipment that are locked out or tagged out.
- LLR Construction will train employees in the limitations of tags when tags are used in lieu of lockout devices.
- Retraining will be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in machines, equipment or processes that present a new hazard, or when there is a change in the energy control procedures.
- Additional retraining shall also be conducted whenever a periodic inspection reveals, or whenever there is reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.
- LLR Construction will certify that employee training has been accomplished and is being kept up to date. The certification shall contain each employee's name anddates of training and documentation will be kept in employee files.

## WORK PRACTICES

• Employees shall wash their hands immediately or as soon as possible after

removal of gloves or other personal protective equipment and after hand contact with blood or other potentially infectious materials. If hand-washing facilities are not immediately available, employees shall use antiseptic hand cleaner or towelettes and shall wash hands with soap and water as soon as feasible.

- All equipment and/or working surfaces that come into contact with blood or other infectious materials shall be cleaned following contact.
- All personal protective equipment shall be removed immediately upon leaving the work area or as soon as possible if contaminated and placed in an appropriately designated area or container for disposal.
- Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited after exposure to blood or infectious materials, or in areas likely to be contaminated with infectious materials.
- All first aid procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, splattering or generation of droplets.
- Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.
- Equipment that may become contaminated with blood or other potentially infectious materials shall be disposed of by a licensed contractor

PERSONAL PROTECTIVE EQUIPMENT

- LLR Construction, LLC will provide personal protective equipment to employees for use.
- When there is a potential occupational exposure to blood or infectious materials (usually during first aid procedures), employees shall use appropriate personal protective equipment such as: Gloves, head and foot coverings, protective glasses, face shields, or masks, eye protection, mouthpieces, resuscitation bags, pocket masks or other ventilation devices.
- NOTE: In every case, management must be contacted before any COMPANY employee commences work where there may be an exposure to blood or infectious materials.
- Employees must eliminate or minimize the potential for exposure to blood and infectious materials.
- Disposal of contaminated personal protective equipment will be provided without cost to employees.
- Gloves: Gloves shall be worn when it can reasonably be anticipated for the handsto have contact with blood, other potentially infectious materials, mucous membranes, non-intact skin and when touching or handling contaminated items or surfaces.
- Protective glasses, masks or chin length face shields shall be worn whenever splashes, spray, spatter, droplets or aerosols of blood or other potentially infectious materials may be generated and eye, nose or mouth contamination

can be reasonably anticipated.

• Other protective clothing: protective clothing such as, gowns, aprons, lab coats, jackets or similar outer garments shall be worn in occupational exposure situations.

#### Appendix D: Approach to recycling

Our approach to recycling is guided by the direction and goals of the owner. At a minimum, we try to collect and recycle the items that are easily separated and are readily accepted by recycling facilities. There is an added cost that comes with recycling. Not all items are easily separated and widely accepted by recycling facilities. If recycling is a major goal of the client and they acknowledge that the benefits of recycling are worth the time and cost, we will fully support that goal by implementing and executing a recycling plan. The plan will be developed cooperatively between the owner and contractor during the scope development phase of a project so that it can be price accordingly from the beginning. This helps manage buy in and expectations from the beginning to facilitate a positive outcome for all parties.

# Appendix E – Key Personnel Project Manager

Name:	Doug Langley				
Name:					
Title:	Project Manager				
# of Year	rs with the Firm: $\_10$	years			
Experien	ice with the Followin	g Type of Construe	ction Services:		
K Gener	ral Construction	🗌 Mechanical, El	ectrical, and Plumbi	ng 🗌 Roofing	g 🗌 Painting
# of Year	rs as a Project Mana	ger for Type of Cor	struction Services	Selected Above:	12 years
Check A	II Relevant Experien	ce:			
🗴 Proje	cts for Higher Educati	on Owners 🛛 Lab	oratory Renovations	S X Clinical / N	ledical Environment
🕅 Gener	ral Construction	oofing Replacemen	t/Repair 🗌 Mecha	anical Upgrades	Electrical Upgrades
X Interi	or Renovation	bestos abatement	Exterior / Inte	rior painting 🛛 Bo	oiler Replacement
Bitum	inous Paving 🔲 Cor	crete 🗌 Masonry	Exterior Facade	e 🔲 Security Cam	era Installation
Canop	by Replacement/Repa	ir 🗌 Elevator Re	pair/Replacement	Escalator Repai	r/Replacement
Overh	ead Doors 🔲 Glass	Installation 🛛 Ste	el Erection	oncrete Floor	
Duct b	oank repair / installatio	n 🔲 Outdoor light i	nstallation	Suppression Syste	m Installation
Lands	caping	Earthwork / Site	Work 🛛 Demol	ition 🗌 Paintin	g
<b>ATTACH</b> Yes	RESUME				
	eference #1 for Cons f your reference can n				information listed is
Agency's	s contact: NameDav	id Crosby	Title _F	Project Manager	
Telephon	e: <u>505-577-2310</u>		Email Address:	dcrosby@cyberr	nesa.com
Client Reference #2 for Construction: (It is your responsibility to assure that the contact information listed is correct. If your reference can not be contacted, this project may not be considered.)         Agency's contact: Name Brian Long       Title Architect					
Agency's	s contact: Name <u>Bri</u>	an Long	Title _/	Architect	

Telephone: <u>832-654-8103</u> Email Address: <u>medesignarch@aol.com</u>

# **Douglas Langley**

#### **Professional Summary**

Operations Manager/Owner dedicated to the continuous process of improvement in the face of a rapidly evolving and changing market. Extremely resultsoriented and proactive in finding cost-effective solutions to companywide problems.



#### ADDRESS

36 Mesa Rd. Santa Fe, NM 87508 United States



**PHONE** 505-850-4533



EMAIL doug@llrconstructionnm.com



WEBSITE www.llrconstructionnm.com

#### EXPERIENCE

October 2012– Present Operations Manager/Managing Member

LLR Construction, LLC • Santa Fe, NM

- Reviewed plans and specs during the schematic design of preconstruction.
- Obtained building and specialty permits from local jurisdictional agencies
- Conducted weekly production and operations contractor meetings, which facilitated stronger communication and the ability to resolve critical issues.
- Conducted all critical pre-installation conferences with subcontractors, consultants, and manufacturer's representatives.
- Implemented systems to improve process efficiency and reduce the project duration.
- Prepared program operating budgets, budget reports and other financial performance reports.
- Negotiated contracts, prices, terms of sale and service agreements.
- Manage day to day business operations.
- Project management on jobs from \$500 to \$5 Million dollars.
- Estimating of projects compliant with specs and drawings.
- Safety Management of all job sites where crews are performing work.
- Quality Assurance and Quality Control manager of projects where involved as Project Manager.

January 2006– September 2012

Field Operations Manager

FCG Group at Brycon Corporation • Rio Rancho, NM

- Reduced and controlled company expenses by weekly jobsite reviews.
- Trained field supervision, project engineers, and project managers in productively tracking, procuring materials, and rental equipment use.
- Analyzed contract performance for bids, budgets and forecasts.
- Planned and conducted monthly staff trainings with an emphasis on project management and safety.
- Collaborated with electrical, mechanical and structural subs to achieve sustained growth in division.
- Managed all field employees in training, HR needs, staffing projects.
- Managed safety of division of 120 employees.

- Developed estimates and schedules for all large projects.
- Worked with superintendent and project manager to ensure all projects were completed within scheduled time.

January 2000- October 2006 Vice President of Field Operations Jaynes Structures • Albuquerque, NM

- Managed Safety department for all subcontractors, and field staff
- Developed and scheduled training of all supervisor staff in productivity tracking, scheduling, field documentation, and safety.
- Marketed, estimated, and managed projects.

## August 1985– December 1999

Senior Superintendent

Jaynes Corporation• Albuquerque, NM

- Worked with owners, architects, inspectors, subcontractors, utility companies and local municipalities to construct projects up to 20 million dollars in value
- Interpret specifications, blueprints, and job orders as need for supervising projects.
- Communicated production goals daily.
- Inspect work performed to ensure conformance with drawings, specifications uniform-building codes, ADA codes, local ordinances, all safety regulations, policies and procedures and meeting the highest standard of quality.
- Analyze and resolve work problems.
- Overall quality control on the project for both the Company and the subcontractors.
- Understand the EPA requirements for jobsite making sure they are met and maintained.

## **EDUCATION**

**University of New Mexico**, Albuquerque, NM Project Management Courses (2001-2005)

**Central New Mexico Community College**, Albuquerque, NM Project Management Courses (1998-2001)

**Associated General Contractors Supervisor Training Program**, Albuquerque, NM Project Management Courses (1988-1997)

**Carpenter's Union Apprenticeship Training**, Albuquerque, NM Project Management Courses (1983-1987)

## ADDITIONAL SKILLS & CERTIFICATIONS

- General Contracting Professional Experience
- Subcontractor Management
- Knowledgeable in construction safety

- First Aid and CPR Certified
- Proficient in Project Scheduling
- SWPPP Certified
- OSHA 30 Certified
- ASHE Certified
- Budgeting and Finance Review
- Customer Relations
- Multi-Operations Management
- Multi-Site Operations Expert

## PROJECT EXPERIENCE

- NMGF Warehouse: Shop Building Design Build Project \$ 2.6M (project manager for LLR Construction, LLC)
- Presbyterian, Espanola: \$17M New Presbyterian Hospital in Espanola, NM (project manager for Brycon)
- Christus St. Vincent Regional Medical Center, Med Dental 2<sup>nd</sup> Floor Remodel, \$4.3M. (project manager for LLR Construction, LLC)
- School for the Deaf Historic Renovation: LEED renovation of historic building, \$5M. (project manager for Brycon)

## **REFERENCES**

- David Crosby SFPS 505-577-2310
- Scott Johnson LAPS 505-470-9891
- Russell Benjamin NMGF 505-252-5989
- Lawrence Dennis CSV 505-470-1206

More Available upon request

## Appendix F – Key Personnel Lead Superintendent

Name: Paul Langley	
Name:	
Title: Managing Member-Field Operations	
# of Years with the Firm: <u>10 years</u>	
Experience with the Following Type of Construction Services:	
General Construction	
Experience with the Following Type of Construction Services:	
General Construction IMechanical, Electrical, and Plumbing Roofing	Painting
# of Years as a Project Manager for Type of Construction Services Selected Above: <u>26</u>	/EARS
Check All Relevant Experience:         Image: Straight of Migher Education Owners         Image: Straight of Migher	I Environment
🕅 General Construction 🖄 Roofing Replacement/Repair 🖄 Mechanical Upgrades 🖄 Elec	trical Upgrades
X Interior Renovation □ Asbestos abatement X Exterior / Interior painting X Boiler R	eplacement
🕅 Bituminous Paving 🖄 Concrete 🛛 Masonry 🖄 Exterior Facade 🕅 Security Camera Ins	stallation
🕅 Canopy Replacement/Repair 🛛 🕅 Elevator Repair/Replacement 🔲 Escalator Repair/Repla	acement
🖄 Overhead Doors 🖄 Glass Installation 🖄 Steel Erection 🛛 Concrete Floor	
X Duct bank repair / installation X Outdoor light installation X Fire Suppression System Insta	allation
🕅 Landscaping 🔀 Fencing 🕅 Earthwork / Site Work 🛛 Demolition 🛛 🖄 Painting	
ATTACH RESUME AYes	
Client Reference #1 for Construction: (It is your responsibility to assure that the contact inform correct. If your reference can not be contacted, this project may not be considered.)	nation listed is
Agency's contact: Name <u>Rick Carboni</u> Title <u>Executive Director</u>	
Telephone:505-913-5171Email Address:Rick.Carboni@st	tvin.org

**Client Reference #2 for Construction:** (It is your responsibility to assure that the contact information listed is correct. If your reference can not be contacted, this project may not be considered.)

Agency's cor	tact: Name Brian Nenninger	Title _	PM-Owner
Telephone:	832-338-0364	Email Address:	brian.nenninger@orion-west.com

# **Paul Langley**

## **Professional Summary**

**Motivated Construction** Manager highly effective at finding the best methods possible to complete exceptional construction projects. Strong knowledge of civil engineering principles and concepts. Veteran Superintendent wellversed in preparing and interpreting graphs, charts and maps to create practical schedules for new construction projects. **Construction Project** Manager who collaborates successfully with architects, owners and construction staff to complete multi-milliondollar projects.

•

## ADDRESS

585 Faith Dr. Sandia Park, NM 87047 United States



**PHONE** 505-400-0349

EMAIL

paul@llrconstructionnm.com

WEBSITE

www.llrconstructionnm.com

## **EXPERIENCE**

March 2012– Present Managing Member

LLR Construction, LLC • Santa Fe, NM

- Reviewed plans and specs during the schematic design of preconstruction. Coordinated utility service providers according to project schedules. Conducted weekly production and operations contractor meetings, which facilitated stronger communication and the ability to resolve critical issues. Performed regular job site observations to provide direction for all general contractor personnel.
- Conducted all critical pre-installation conferences with general contractors, subcontractors, consultants and manufacturer's representatives.
- Worked with construction administration consultants to plan field observations on schedule.
- Prepared and followed through on all required punch lists.
- Oversaw the entire building turnover process, while enhancing communication between all construction management.
- Provided safety kits to all construction personnel, which complied with safety protocols for the job site.
- Conducted routine quality audits to ensure that work was progressing per the specification and initiated corrective actions if needed.
- Guided and directed third-party inspectors through project construction, commissioning and closeout.
- Avoided construction delays by efficiently following through with all site inspections in a timely manner.
- Implemented systems to improve process efficiency and reduce the project duration.
- QA/QC Manager on all projects involved as Project Manager on.

## August 1994– February 2012

Area Superintendent

Concrete Frame Associates • Denver, CO

- Reviewed plans and specs during the schematic design of preconstruction.
- Conducted weekly production and operations contractor meetings, which facilitated stronger communication and the ability to resolve critical issues.
- Performed regular job site observations to provide direction for all general contractor personnel.
- Reported to the vice president of production on conformance

with the contract schedule.

- Conducted all critical pre-installation conferences with general contractors, subcontractors, consultants and manufacturer's representatives.
- Oversaw the entire building turnover process, while enhancing communication between all construction management.
- Determined the project schedule, which included the sequence of all construction activities.
- Provided safety kits to all construction personnel, which complied with safety protocols for the job site.

## August 1985– August 1994

## Carpenter

Jaynes Corporation • Albuquerque, NM

- Conducted weekly production and operations contractor meetings, which facilitated stronger communication and the ability to resolve critical issues.
- Prepared and followed through on all required punch lists.
- Reported the quality of performance on site to all site construction managers.
- Implemented systems to improve efficiency and reduce the project duration.

## **EDUCATION**

**Carpenter Apprenticeship Program**, Albuquerque, NM Bachelor of Arts: Carpentry (1989)

**UNM Continuing Education**, Albuquerque, NM Associate of Arts: Construction Management (1989)

## ADDITIONAL SKILLS & CERTIFICATIONS

- OSHA 30 Certified
- Subcontracting Management
- Knowledgeable in construction safety
- Best Building Practices
- Scaffolding
- Commercial Construction Expert
- Project Scheduling
- Building Systems and Services
- Excellent Customer Relations
- Interior and Exterior renovations
- Strong interpersonal skills

## PROJECT

## EXPERIENCE

- M.E.S.A for Sandia National Labs: six \$150M+ buildings (superintendent for structural concrete), Total project: Approximately \$1B.
- Los Alamos National Labs: \$250M, 300,000 square foot structure for world's largest super computer (superintendent).

- Annshutz Medical Center: \$90M, 20 story hospital (general superintendent for structural/architectural concrete).
- San Juan Regional Medical Center: \$30M, 200,000 square foot 6 story addition to medical center. (superintendent for structural concrete).
- UNM School of Architecture: \$20M, (superintendent for structural/architectural concrete).

## **REFERENCES**

[Available upon request.]

## Appendix G – Key Personnel Safety Manager

Name: Paul Langley	
Name:	
Title: <u>Managing Member - Field Operations</u>	
# of Years with the Firm:10	
Experience with the Following Type of Construction Services:	
I General Construction I Mechanical, Electrical, and Plumbing I Roofing	Painting
# of Years as a Project Manager for Type of Construction Services Selected Above:(	0
Check All Relevant Experience:	
Projects for Higher Education Owners I Laboratory Renovations I Clinical / Medical E	Environment
🖾 General Construction 🛛 Roofing Replacement/Repair 🖾 Mechanical Upgrades 🛽 🛣 Electri	ical Upgrades
Interior Renovation ☐ Asbestos abatement I Exterior / Interior painting I Boiler Rep	lacement
🛛 Bituminous Paving 🖪 Concrete 🖾 Masonry 🛣 Exterior Facade 🖾 Security Camera Insta	allation
🖾 Canopy Replacement/Repair 🛛 🖾 Elevator Repair/Replacement 🗌 Escalator Repair/Replac	ement
X Overhead Doors X Glass Installation X Steel Erection X Concrete Floor	
🗵 Duct bank repair / installation 🖾 Outdoor light installation 🖺 Fire Suppression System Installa	ation
🛛 Landscaping 🖾 Fencing 🖾 Earthwork / Site Work 🖾 Demolition 🛛 🖾 Painting	
ATTACH RESUME X Yes	
Client Reference #1 for Construction: (It is your responsibility to assure that the contact informat correct. If your reference can not be contacted, this project may not be considered.)	tion listed is
Agency's contact: Name         Rick Carboni         Title         Executive Director	
Telephone: 505-913-5171 Email Address: Rick.Carboni@stvi	in.org
Client Reference #2 for Construction: (It is your responsibility to assure that the contact informat correct. If your reference can not be contacted, this project may not be considered.)	tion listed is
Agency's contact: Name <u>Brian Nenninger</u> Title <u>PM-Owner</u>	

Telephone:	832-338-0364	Email Address:	brian.nenninger@orion-west.com

# **Paul Langley**

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March 2012– Present Managing Member

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- Provided safety kits to all construction personnel, which complied with safety protocols for the job site.
- Conducted routine quality audits to ensure that work was progressing per the specification and initiated corrective actions if needed.
- Guided and directed third-party inspectors through project construction, commissioning and closeout.
- Avoided construction delays by efficiently following through with all site inspections in a timely manner.
- Implemented systems to improve process efficiency and reduce the project duration.
- QA/QC Manager on all projects involved as Project Manager on.

## August 1994– February 2012

Area Superintendent

Concrete Frame Associates • Denver, CO

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- Performed regular job site observations to provide direction for all general contractor personnel.
- Reported to the vice president of production on conformance

with the contract schedule.

- Conducted all critical pre-installation conferences with general contractors, subcontractors, consultants and manufacturer's representatives.
- Oversaw the entire building turnover process, while enhancing communication between all construction management.
- Determined the project schedule, which included the sequence of all construction activities.
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## August 1985– August 1994

## Carpenter

Jaynes Corporation • Albuquerque, NM

- Conducted weekly production and operations contractor meetings, which facilitated stronger communication and the ability to resolve critical issues.
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**UNM Continuing Education**, Albuquerque, NM Associate of Arts: Construction Management (1989)

## ADDITIONAL SKILLS & CERTIFICATIONS

- OSHA 30 Certified
- Subcontracting Management
- Knowledgeable in construction safety
- Best Building Practices
- Scaffolding
- Commercial Construction Expert
- Project Scheduling
- Building Systems and Services
- Excellent Customer Relations
- Interior and Exterior renovations
- Strong interpersonal skills

## PROJECT

## EXPERIENCE

- M.E.S.A for Sandia National Labs: six \$150M+ buildings (superintendent for structural concrete), Total project: Approximately \$1B.
- Los Alamos National Labs: \$250M, 300,000 square foot structure for world's largest super computer (superintendent).

- Annshutz Medical Center: \$90M, 20 story hospital (general superintendent for structural/architectural concrete).
- San Juan Regional Medical Center: \$30M, 200,000 square foot 6 story addition to medical center. (superintendent for structural concrete).
- UNM School of Architecture: \$20M, (superintendent for structural/architectural concrete).

## **REFERENCES**

[Available upon request.]

	Andy Romero	Andy Romero			
Proponent's Name:					
Agency / Client Name:	Northern New Mexico	o College			
Project Name:	NNM College Restroo	om & Lab Renovati	on		
Project Number:	17-110	Project Va	lue:		
Achieved or Anticipated	Final Acceptance after	January 1, 2018	] Yes 🕅 No		
Company Role: 🗌 Sub	Contractor	忆 Prime / JV Contra	actor		
Agency: 🛛 Publ	ic	Private			
Location: On a	UNM Campus	X Within State of N	ew Mexico		
Estimated Self Performa (Based on actual hours throu		upervisory hours <u>do N</u>	<u>OT</u> apply.)		
Project Type: (The project type	should correspond to the applicable C	contract the proposal is being sub	mitted for: General Construction, MEP, Roofing)		
K General Construction	🗌 Mechanical, Ele	ctrical, and Plumbing	Roofing Painting		
submitting for: General Construction, N	IEP, Roofing)		correspond to the applicable trade Contract the proposer is ements. Labratory upgrades to counter	rtops, plumbing	
& electrical fixtures, ne		<b>1</b>			
	wepony neoring				
<b>Client Reference for Construction:</b> (It is your responsibility to assure that the contact information listed is correct. If your reference can not be contacted, this project may not be considered.)					
Agency's contact: Name	Andy Romero	Title_Fac	ilities Manager		
Telephone: 505-747-	2166	Email Address:	andy@nnmc.edu		

Applicable to Firms Submitting a Proposal for General Construction Contracts

Applica	isie to r innis ousinitting u					
Proponent's Name:	Diana Cordova					
Agency / Client Name:	Horizon Academy We	Horizon Academy West				
Project Name: HAW Art/PE Building Remodel						
Project Number:	18-122	Project Value:				
Achieved or Anticipate	d Final Acceptance after J	<b>January 1, 2018</b> 🖄 Yes 🗌 No				
Company Role: 🗌 Su	b Contractor	I Prime / JV Contractor				
Agency: 🛛 Put	blic	Private				
Location: On	a UNM Campus	X Within State of New Mexico				
Estimated Self Perform (Based on actual hours thro		upervisory hours <u>do NOT</u> apply.)				
Project Type: (The project ty	rpe should correspond to the applicable C	Contract the proposal is being submitted for: General Construction, MEP, Roofing)				
X General Construction	Mechanical, Ele	ectrical, and Plumbing				
submitting for: General Construction,	, MEP, Roofing)	volved. The project scope should correspond to the applicable trade Contract the proposer is v Art room and PE facility. We contracted the architect and				
and completed the ren	ovation of the building. T	The project included demolition of the existing interior, concrete				
removal, plumbing rou	ugh and trim, new electric	ical and lighting, HVAC upgrades, new partitions, ceilings, flooring				
Paint, exterior finishes	s, sidewalks and concrete	e patching on the interior.				
	e contacted, this project ma	ponsibility to assure that the contact information listed is correct. If ay not be considered.)				
505 008 (	0459 Ext 107	doordovio@howcot not				
Telephone: 505-998-0	/10/ LAt 10/	Email Address:				

Applicable to Firms Submitting a Proposal for General Construction Contracts

Applicable to Firms Submitting a Proposal for General Construction Contracts					
Proponent's Nan	ne:	Alan Tapia			
Agency / Client Name:		Bernalillo Public Sch	ools		·····
Project Name:		Softball Field Storage	e Building Repair & Ren	ovation	
Project Number:		17-109	Project Value:	55,684.97	
Achieved or Ant	icipated	Final Acceptance after	<b>January 1, 2018</b> 🗌 Yes	X No	
Company Role:	Company Role: Sub Contractor				
Agency:	🛛 Public	c	Private		
Location:	🗌 On a	UNM Campus	🕅 Within State of New N	lexico	
Estimated Self P (Based on actual ho			upervisory hours <u>do NOT</u> ap	ply.)	
Project Type: (The	e project type	should correspond to the applicable	Contract the proposal is being submitted	for: General Construction, MI	EP, Roofing)
🖄 General Const	truction	🗌 Mechanical, Ele	ectrical, and Plumbing	Roofing	Painting
submitting for: General Co	onstruction, ME	EP, Roofing)	volved. The project scope should corresp ld. This is the second ph		
softball fields.					
		struction: (It is your resp contacted, this project ma	oonsibility to assure that the ay not be considered.)	contact information	n listed is correct. If
Agency's contac	ct: Name	Terry Darnell	Title Facilitie	s Superintendent	
Telephone:         505-220-3253         Email Address:					

Proponent's Nam	ne: _	Dan Erickson			
Agency / Client Name: New Mexico Game and Fish					
Project Name:	-	New Mexico Game a	nd Fish Warehou	ise Complex	
Project Number:	-	16-160	Project V	Value: <u>1,410,349.00</u>	
Achieved or Antie	cipated F	inal Acceptance after J	anuary 1, 2018	🗌 Yes 🕵 No	
Company Role:	□ Sub C	ontractor	A Prime / JV Cor	ntractor	
Agency:	Public		Private		
Location:	🗌 On a L	INM Campus	U Within State of	New Mexico	
Estimated Self Pe (Based on actual hou		the working foreperson. Su	pervisory hours <u>do</u>	<u>NOT</u> apply.)	
Project Type: (The	project type sh	ould correspond to the applicable Co	ntract the proposal is being	submitted for: General Construction, M	EP, Roofing)
🖄 General Constr	ruction	🗌 Mechanical, Elec	trical, and Plumbir	ng 🗌 Roofing	Painting
Project Scope: (Bi submitting for: General Con	•	•	Ived. The project scope sho	uld correspond to the applicable trade (	Contract the proposer is
A design build the	hat the sc	hedule required it to b	e done in 6 mont	ths from the start of desi	gn to completion of
construction. Th	e project	had site development	of 10 acres, utili	ties, warehouse, covered	<u>l storage, This includ</u> ed
acess roads, grav	veled parl	king, and perimeter fer	ncing. The projec	et was completed on tim	e and below budget.
Client Reference for Construction: (It is your responsibility to assure that the contact information listed is correct. If your reference can not be contacted, this project may not be considered.)					
Agency's contact	t: Name _	Dan Erickson	Title	Facilities Project Manag	ger
	05-231-2		_Email Address:	daniel.erickson@dgs	.nm.gov

Applicable to Firms Submitting a Proposal for General Construction Contracts

	Applicabl	le to Firms Submitting	a Proposal for Gei	neral Construction Contr	acts
Proponent's Na	me:	David Crosby	David Crosby		
Agency / Client	Agency / Client Name: Santa Fe Public Schools				
Project Name:		Santa Fe Public Sch	ools		
Project Number	:		Project	Value:	
Achieved or Ant	ticipated	Final Acceptance after	January 1, 2018	☐ Yes X_KNo	
Company Role:	Sub 🗌	Contractor	Prime / JV Co	ntractor	
Agency:	🛛 Public	C	Private		
Location:	🗌 On a	UNM Campus	🕅 Within State c	f New Mexico	
Estimated Self F (Based on actual ho		nce (%): <u>30%</u> h the working foreperson. \$	Supervisory hours <u>do</u>	<u>» NOT</u> apply.)	
Project Type: (Th	e project type :	should correspond to the applicable	Contract the proposal is bein	g submitted for: General Construction, M	/EP, Roofing)
X General Cons	truction	🗌 Mechanical, El	lectrical, and Plumbi	ng 🗌 Roofing	Painting
submitting for: General Co	onstruction, ME	EP, Roofing)		ould correspond to the applicable trade	
HVAC & Plum	bing, and	l Electrical			
		<b>struction:</b> (It is your res contacted, this project m		that the contact information	on listed is correct. If
Agency's contac	ct: Name	David Crosby	Title P	roject Manager	
Telephone: 505	5-577-23	10	Email Address:	dcrosby@cybermesa.c	com

## **Appendix K – Indefinite Quantity Contract Experience**

## General

1	Agency Name:	Cooperative Educational Service			
2	Contract #:	Current Contract # 2020-09B-234 First award in 2013 and received new Award in 2022			
	Reference Informati	on			
3	Reference Name, Positi	on: David (	Chavez Executive Director		
4	Address:	10601 Research Rd SE			
5	City, State Zip Code:	Albuqu	erque, NM 87123		
6	Phone Number:	505-34	4-5470		
7	E-mail Address:				
	Contract Time:	20 <u>1</u>			
8	Potential Maximum Tin	ne:*	Current Contract 3 years		
9	Award Date:				
10	10 Expiration / Termination Date (Or Still Active): 12/13/22				
	Contract Amounts:				
11	Potential Maximum Am	nount:**	10 MM ea contract term		
12	Total Amount of Work				
13	Total Number of Job Orders Issued (#): 45				
	Key Personnel				
14	Name and Position:	David Langley	Estimator, PM		
15	Name and Position:	20 <b>1</b>	PM, Estimator, Super		
16	Name and Position:				
17	Name and Position:		· · · · · · · · · · · · · · · · · · ·		
18	Yes or No, Did Any of th	e Key Personnel Propo	sed for the Naperville Contract Work on this Contract? NO		
19	If Answer to Above Que Position Below:	stion is "Yes," and if T	hose Individuals are NOT Listed as a Key Personnel Above, List the Name and		

• Potential Maximum Time shall mean the the entire possible duration of the Contract. The Potential Maximum Time is calculated by adding together the base term plus all possible option terms.

\*\* Potential Maximum Amount shall be the sum of the Potential Maximum for the base term and ALL possible option terms. Expressed as a Dollar Amount.

## Appendix L – Price Proposal

## **University of New Mexico**

## **BID FOR JOB ORDER CONTRACT (PRICE PROPOSAL)**

Date of Bid: New Mexico State Contractor's License No. Resident Contractor's Preference Certificate No. Contractor's New Mexico Gross Receipts Tax No. Contractor's Federal Employee Identification No. Dept. Workforce Solutions Registered Contractors Number

UNM Job Order Contracting (JOC)

## Request for Proposals No. <u>RFP-2379-23</u>

Bid (Price Proposal) of (company name): <u>LLR Construction, LLC</u> (hereinafter called the "Bidder") organized and existing under the laws of the State of New Mexico, doing business as a Corporation, Partnership or Individual. (Circle correct one).

To: The Regents of The University of New Mexico, Albuquerque, New Mexico (hereinafter called the "Owner").

The undersigned, as an authorized representative for the Bidder named above, in compliance with the Request For proposals (RFP) for Job Order Contracting services, having examined the Contract Documents, hereby proposes to furnish all labor, materials and supplies, and to construct the project in accordance with the contract documents at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the contract documents, of which this proposal is a part.

Offeror must agree to commence work on a date specified in a written "Notice to Proceed" issued by the Owner. The Offeror must agree to complete the Project within the Job Order Completion Time stipulated date in the "Notice of Proceed". At the sole discretion of the Owner, liquidated damages will be assessed, if at all, on a Job Order-by-Job-Order basis. For each calendar day that the Detailed Scope of Work for a Job Order shall remain incomplete after the Job Order Completion Time, as amended pursuant to this Contract, the amount per calendar will be determined with each Job Order, and that amount will be deducted from any money due the Contractor, not as a penalty but as liquidated damages.

The following information is required for state reporting purposes only, and will not be used in evaluating or awarding the contract.

Is project material offered grown, produced or wholly manufactured in New Mexico? NO

Business Size / Classification:

Х	Small Business Concern	
	Large Business Concern	

Disadvantaged Business Concern Women Owned Business Concern

The Contractor shall perform all Work required called for in each individual Job Order issued under this Contract using the Construction Task Catalog<sup>®</sup> and Technical Specifications incorporated herein. Contractor shall perform any or all functions called for in the Contract Documents in the quantities specified in individual Job Orders against this Contract for the Unit Prices specified in the Construction Task Catalog<sup>®</sup> (CTC) multiplied by the Adjustment Factors being proposed.

The Bidder shall set forth Adjustment Factors in clearly legible figures in the respective space provided. Failure to submit Adjustment Factors for all categories may result in the Proposal being deemed non-responsive. <u>All amounts shall exclude NM Gross Receipts Tax.</u> The Contractor shall perform the Tasks required by each individual Job Order using the following Adjustment Factors:

The Schedule of Prices is contained in a separate Microsoft Excel document. Complete the Microsoft Excel document and submit as part of this Appendix L. <u>Be sure to enter</u> Adjustment Factors for each campus and trade being proposed.

## **PART 1: SCHEDULE OF PRICES:**

Attach Schedule of Prices from the Microsoft Excel document. On the Microsoft Excel document, <u>be sure to enter Adjustment Factors for each campus and trade being proposed</u>.

Has the Part 1: Schedule of Prices been attached to this Appendix L: Xes No

## PART 2: SIGNATURES

The Bidder understands that the contract(s) will be awarded in accordance with the all terms and conditions contained in this RFP and that the Owner reserves the right to reject any or all bids and to waive any formalities in the bidding.

The Bidder agrees that this response will be good and may not be withdrawn for a period of thirty (30) calendar days after the scheduled closing time for receiving bids.

Respectfully Submitted,

By:(Authorized Signature) <u>Dave Jaryhy</u>	Date: <u>11/17/22</u>
By:(Same Name, Printed or Typed) <u>David Langley</u>	
Title: Managing Member - Finance	
Company: <u>LLR Construction, LLC</u>	
Address: 2015 Wyoming Blvd NE Ste I	
Zip: <u>87112</u>	
Phone: <u>505-428-9571</u> Fax:	Email: <u>david@llrcon.com</u>

(Affix Corporate Seal if response by Corporation):

#### Part 1 Schedule of Prices

Attach this schedule of Prices to Appendix L

OFFEROR'S NAME: LLR Construction, LLC

For the UNM Job Order Contracting Program the Offeror shall complete the cells highlighted grey below. Failure to submit all the Adjustment Factors for the Campus/Contract Type being proposes may result in the bid for that Campus/Contract Type being deemed nonresponsive. The Contractor is to include the administrative fee of 2.98% into their responding adjustment factors. The Contractor shall perform the Tasks required by each individual Job Order using the following Adjustment Factors:

UNM Jol	b Order Contracting Program	CONTRACT TYPES					
Campus / Region	Adjustment Factor Name	General Construction	Mechanical, Electrical, Plumbing	Roofing			
	Normal Working Hours (60%)	0.4679					
Main Campus	Other Than Normal Working Hours (30%)	0.5179					
(Albuquerque)	Non Pre-Priced (10%)	0.2298					
	Award Criteria Figure	0.4591	0.0000	0.0000			
Campus / Region	Adjustment Factor Name	General Construction	Mechanical, Electrical, Plumbing	Roofing			
	Normal Working Hours (60%)	0.4679					
Northern New Mexico Branch	Other Than Normal Working Hours (30%)	0.5179					
Campuses	Non Pre-Priced (10%)	0.2298					
	Award Criteria Figure	0.4591	0.0000	0.0000			
Campus / Region	Adjustment Factor Name	General Construction	Mechanical, Electrical, Plumbing	Roofing			
	Normal Working Hours (60%)	0.4679					
Southern New Mexico Branch	Other Than Normal Working Hours (30%)	0.5179					
Campuses	Non Pre-Priced (10%)	0.2298					
	Award Criteria Figure	0.4591	0.0000	0.0000			

For the UNM Cooperative Purchasing Job Order Contracting Program the Offeror shall complete the cells highlighted grey below. Failure to submit all the Adjustment Factors for the Region/Contract Type being propose may result in the bid for that Region/Contract Type being deemed non-responsive. A complete map of the regions can be found in the Purpose of this RFP Document. The Contractor is to include the administrative fee of 7.50% into their responding adjustment factors. The Contractor shall perform the Tasks required by each individual Job Order using the following Adjustment Factors:

#### NOTES TO OFFERERS

By:

1. The Other Than Normal Working Hours Adjustment Factors must be greater than or equal to the Normal Working Hours Adjustment Factors.

#### 2. The Non Pre-Priced Adjustment Factor must be greater than or equal to 1.000

3. The weighted multipliers above are for the purpose of calculating an Award Criteria Figure only. No assurances are made by the owner that Work will be ordered under the Contract in a distribution consistent with the weightede persentages abouve. The Award Criteria Figure is only used for the purpose of determing the Bid.

4. When.s ubmitting Job Order Price Proposals related to specific Job Orders, the Bidder shall utilize one or more of the Adjustment Factors applicable to the Work being Performed.

#### 5. Make sure to attach this Part 1: Schedule of Prices to Appendix L in your proposal

By: Authorized Signature:	Davie Jonahy
Same Name and title Printed or typed:	David Langley Managing Member - Finance
Date:	11/17/2022

	perative Purchasing Job Order		CONTRACT TYPES			
Campus / Region	Contracting Program Adjustment Factor Name	General Construction	Mechanical Electrical			
	Normal Working Hours (60%)	0.5131				
Region #1	Other Than Normal Working Hours (30%)	0.5631				
	Non Pre-Priced (10%)	0.275				
	Award Criteria Figure	0.5043	0.0000	0.000		
Campus / Region	Adjustment Factor Name	General Construction	Mechanical, Electrical, Plumbing	Roofing		
	Normal Working Hours (60%)	0.5131				
Region #2	Other Than Normal Working Hours (30%)	0.5631				
	Non Pre-Priced (10%)	0.275				
	Award Criteria Figure	0.5043	0.0000	0.0000		
Campus / Region	Adjustment Factor Name	General Construction	Mechanical, Electrical, Plumbing	Roofing		
	Normal Working Hours (60%)	0.5131				
Region #3	Other Than Normal Working Hours (30%)	0.5631				
	Non Pre-Priced (10%)	0.275				
	Award Criteria Figure	0.5043	0.0000	0.0000		
Campus / Region	Adjustment Factor Name	General Construction	Mechanical, Electrical, Plumbing	Roofing		
	Normal Working Hours (60%)	0.5131				
Region #4	Other Than Normal Working Hours (30%)	0.5631				
	Non Pre-Priced (10%)	0.275				
	Award Criteria Figure	0.5043	0.0000	0.0000		
Campus / Region	Adjustment Factor Name	General Construction	Mechanical, Electrical, Plumbing	Roofing		
	Normal Working Hours (60%)	0.5131				
Region #5	Other Than Normal Working Hours (30%)	0.5631				
	Non Pre-Priced (10%)	0.275				
	Award Criteria Figure	0.5043	0.0000	0.0000		



## **CERTIFICATE OF LIABILITY INSURANCE**

DATE (MM/DD/YYYY) 12/28/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.									
IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).									
Poms & Associates Insurance Brokers				NAME: PHONE (A/C, No	(800) 89	98-6236	FAX (A/C, No): (5	505) 7	97-1432
201 3rd Street NW, Suite 1400				E-MAIL ADDRES				,	
A.I			NNA 07400						NAIC #
Albuquerque			NM 87102	INSURE		States Indem			10177
INSURED				INSURE	RB: Builder's	Trust of New I	VIEXICO		
LLR Construction, LLC				INSURE	RC:				
2015 Wyoming Blvd. NE, Ste. 1				INSURE	RD:				
Albuquerque			NM 87112	INSURE					
				INSURE	RF:				
COVERAGES CERT THIS IS TO CERTIFY THAT THE POLICIES OF IN	-						REVISION NUMBER:		
INDICATED. NOTWITHSTANDING ANY REQUIR CERTIFICATE MAY BE ISSUED OR MAY PERTAI EXCLUSIONS AND CONDITIONS OF SUCH POL	REMEI IN, TH	NT, TE He ins	ERM OR CONDITION OF ANY ( SURANCE AFFORDED BY THE	CONTRA E POLICI	ACT OR OTHER ES DESCRIBEI	DOCUMENT \ DHEREIN IS S	WITH RESPECT TO WHICH THIS		
		SUBR	POLICY NUMBER		POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
					(		EACH OCCURRENCE \$	1,000	),000
							DAMAGE TO RENTED PREMISES (Ea occurrence) \$	100,0	000
								\$ 5,000	
A	Y	Υ	CPO 9031665		01/01/2022	01/01/2023	PERSONAL & ADV INJURY \$	1,000	0,000
GEN'L AGGREGATE LIMIT APPLIES PER:								2,000	0,000
							PRODUCTS - COMP/OP AGG \$	2,000	0,000
OTHER:							\$		
AUTOMOBILE LIABILITY							COMBINED SINGLE LIMIT (Ea accident)	1,000	0,000
ANY AUTO							BODILY INJURY (Per person) \$		
A OWNED SCHEDULED AUTOS	Υ	Y	CAO 9031665		01/01/2022	01/01/2023	BODILY INJURY (Per accident) \$		
HIRED NON-OWNED AUTOS ONLY AUTOS ONLY							PROPERTY DAMAGE (Per accident) \$	\$	
							Medical payments \$	5,000	)
UMBRELLA LIAB X OCCUR							EACH OCCURRENCE \$	5,000	0,000
A EXCESS LIAB CLAIMS-MADE	Y	Y	CXO 9031665		01/01/2022	01/01/2023	AGGREGATE \$	5,000	0,000
DED 🗙 RETENTION \$ 0							\$		
WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N							X PER OTH- STATUTE ER		
	N/A		WC100-0006044-2022A		01/01/2022	01/01/2023	E.L. EACH ACCIDENT \$	2,000	0,000
(Mandatory in NH) If yes, describe under	-				0 0 2022				
DESCRIPTION OF OPERATIONS below								2,000	
Leased/Rented Equipment			000 000 000-		0.1/0.1/2000	04/04/2020	Limit	\$150	,000
A			CPO 9031665		01/01/2022	01/01/2023	Deductible	¢500	
	e (AC	000 4	01. Additional Remarks Cake late	may 5	toobod if many and	and in remains 1	Deductible	\$500	
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)									
CERTIFICATE HOLDER CANCELLATION									
FOR BIDDING PURPOSES FOR PROOF OF INSURANCE					SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.				
				AUTHOR		ITATIVE			
						/	17		
				Carty Za					

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- **a.** You must see to it that we are notified as soon as practicable of an "occurrence" or an offense which may result in a claim. To the extent possible, notice should include:
  - (1) How, when and where the "occurrence" or offense took place;
  - (2) The names and addresses of any injured persons and witnesses; and
  - (3) The nature and location of any injury or damage arising out of the "occurrence" or offense.

This Condition only applies when the "occurrence", offense, claim or "suit" is known to you (if you are an individual), to a partner (if you are a partnership), a manager (if you are a limited liability company), or an officer or insurance manager of a corporation (if you are a corporation). Knowledge of an "occurrence", offense, claim or "suit" by an agent, servant or "employee" of an insured (other than a partner, manager, officer, or insurance manager) does not imply knowledge by the insured unless the insured has received notice from the agent, servant or "employee".

- **b.** If a claim is made or "suit" is brought against any insured, you must:
  - (1) Immediately record the specifics of the claim or "suit" and the date received; and
  - (2) Notify us as soon as practicable.

You must see to it that we receive written notice of the claim or "suit" as soon as practicable. Failure by an agent, servant or "employee" of an insured (other than a partner, manager, officer, or insurance manager) to notify us of an "occurrence", offense, claim or "suit" will not jeopardize your coverage.

# XII. WAIVER OF TRANSFER OF RIGHTS OF RECOVERY

The following is added to the paragraph **8. Transfer Of Rights Of Recovery Against Others To Us** as found in **SECTION IV - COMMERCIAL LIABILITY CONDITIONS**:

We waive any right of recovery we may have against any person or organization because of payments we make for injury or damage arising out of "your work" included in the "products-completed operations hazard" or your ongoing operations, subject to the following:

**a.** You are required under a written contract to waive your rights to recover from that person or organization; and

**b.** The written contract was executed and in effect before any injury or damage that would give rise to a claim under this Commercial General Liability Coverage Part.

This waiver does not apply to any person who is an engineer or architect,

or to any organization with respect to an engineer or architect employed by such organization, unless agreed to in writing by us.

#### XIII.UNINTENTIONAL FAILURE TO DISCLOSE HAZARDS

The following Condition is added to SECTION IV -COMMERCIAL GENERAL LIABILITY CONDITIONS:

## 10. Unintentional Failure To Disclose Hazards

Any unintentional error or omission in the description of, or failure to completely describe, any premises or operations intended to be covered by this Coverage Part will not invalidate or affect coverage for those premises or operations. Such unintentional error or omission must be reported to us as soon as practicable after its discovery.

This Condition does not affect our right to collect any additional premium associated with such unintentional error or omission or our right to cancel or non-renew this policy.

## XIV. MOBILE EQUIPMENT REDEFINED

Subparagraph **f.(1)** under the definition of "mobile equipment" as found in **SECTION V** -**DEFINITIONS** is deleted and replaced by the following:

- (1) Equipment with a gross vehicle weight of 1000 pounds or more and designed primarily for:
  - (a) Snow removal;
  - (b) Road maintenance, but not construction or resurfacing; or
  - (c) Street cleaning.

#### THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

## ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS -COMPLETED OPERATIONS - IN A WRITTEN CONTRACT OR AGREEMENT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

## SCHEDULE

Name of Person or Organization:

Location And Description of Completed Operations:

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

A. SECTION II - WHO IS AN INSURED is amended to include as an insured the person or organization shown in the Schedule above if you agreed in a written contract or agreement with such person or organization to provide insurance such as is afforded under this policy. The insurance provided by this endorsement only applies to the extent that the liability for "bodily injury" or "property damage" is caused by "your work" at the location designated and described in the Schedule above performed for that insured and included in the "productscompleted operations hazard".

However:

- 1. This person or organization is not an insured with respect to any "bodily injury", or "property damage" occurring prior to the date the written contract or agreement was executed and in effect;
- 2. The insurance afforded to such additional insured only applies to the extent permitted by law; and
- **3.** The insurance afforded to such additional insured will not be broader than:
  - **a.** The coverage you have agreed to provide in the written contract or agreement; or
  - **b.** The coverage provided by this endorsement.

- B. With respect to the Insurance provided by this endorsement, the following is added to SECTION III
   LIMITS OF INSURANCE:
  - **8.** The most we will pay under the insurance provided by this endorsement is:
    - **a.** The applicable limit of insurance to which you have agreed in the written contract or agreement to provide; or
    - **b.** The applicable Limit of Insurance shown in the Declarations,

whichever is less.

C. With respect to the Insurance provided by this endorsement, Paragraph 4. Other Insurance as found under SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS is replaced by the following:

#### 4. Other Insurance

This insurance is excess over any other valid and collectible insurance, whether primary, excess, contingent or on any other basis, unless you have agreed in a written contract or agreement for this insurance to apply on either a:

- (1) Primary and non-contributory basis; or
- (2) Contributory basis.

## 12/27/2019 12:39:30

When this insurance is excess, we will have no duty under Coverage **A** to defend the insured against any "suit" if any other insurer has a duty to defend the insured against that "suit". If no other insurer defends, we will undertake to do so, but we will be entitled to the insured's rights against all those other insurers.

When this insurance is excess over other insurance, we will pay only our share of the amount of the loss, if any, that exceeds the sum of:

- (1) The total amount that all such other insurance would pay for the loss in the absence of this insurance; and
- (2) The total of all deductible and self-insured amounts under all that other insurance.

We will share the remaining loss, if any, with any other insurance that is not described in this Excess Insurance provision and was not bought specifically to apply in excess of the Limits of Insurance shown in the Declarations of this Coverage Part.

## THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

## NEW MEXICO ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS -AUTOMATIC STATUS WHEN REQUIRED IN CONSTRUCTION AGREEMENT WITH YOU

This endorsement modifies insurance provided under the following:

#### COMMERCIAL GENERAL LIABILITY COVERAGE PART

- A. SECTION II WHO IS AN INSURED is amended to include as an insured any person or organization with whom you agree in a written contract or agreement to provide insurance such as is afforded under this policy, but only with respect to liability for "bodily injury" or "property damage" caused by your ongoing operations for the additional insured and only to the extent that such "bodily injury" or "property damage" is caused by your negligence, acts or omissions or the negligence acts or omissions of those performing operations on your behalf.
  - **1.** Your acts or omissions; or
  - 2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for such person or organization at the site or location designated in the written contract or agreement.

However:

- 1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
- **2.** The insurance afforded to such additional insured will not be broader than:
  - **a.** The coverage you have agreed to provide in the written contract or agreement; or
  - **b.** The coverage provided by this endorsement.
- **B.** With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:
  - 1. This does not apply to "bodily injury" or "property damage" occurring:
    - **a.** Prior to the date the written contract or agreement was executed and in effect;
    - **b.** After all work on the project (other than service, maintenance or repairs) to be performed by or on behalf of such person or organization at the site or location of the covered operations has been completed; or

- c. After that portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.
- **2.** "Property damage" to:
  - a. Property owned, occupied or used by;
  - **b.** Property rented to, in the care, custody, or control of, or over which physical control is being exercised for any purpose by; or
  - **c.** "Your work" for,

such person or organization.

- **3.** "Bodily injury" or "property damage" arising out of an architect's, engineer's, or surveyor's rendering of or failure to render any professional services for you, for such person or organization, or for others, including:
  - a. The preparing, approving, or failure to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders, designs, drawings or specifications; and
  - **b.** Supervisory, inspection, or engineering services.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage" involved the rendering of or the failure to render any professional services.

- 4. Any "bodily injury" or "property damage" for which valid and collectible insurance is available under an Owners and Contractors Protective Liability policy that you have purchased.
- C. With respect to the Insurance provided by this endorsement, the following is added to SECTION III LIMITS OF INSURANCE:
  - **8.** The most we will pay under the insurance provided by this endorsement is:

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- **a.** The applicable limit of insurance to which you have agreed in the written contract or agreement to provide; or
- **b.** The applicable Limit of Insurance shown in the Declarations,

whichever is less.

D. With respect to the Insurance provided by this endorsement, Paragraph 4. Other Insurance as found under SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS is replaced by the following:

#### 4. Other Insurance

This insurance is excess over any other valid and collectible insurance, whether primary, excess, contingent or on any other basis, unless you have agreed in a written contract or agreement for this insurance to apply on either a:

- (1) Primary and non-contributory basis; or
- (2) Contributory basis.

When this insurance is excess, we will have no duty under Coverage **A** to defend the insured against any "suit" if any other insurer has a duty to defend the insured against that "suit". If no other insurer defends, we will undertake to do so, but we will be entitled to the insured's rights against all those other insurers.

When this insurance is excess over other insurance, we will pay only our share of the amount of the loss, if any, that exceeds the sum of:

- (1) The total amount that all such other insurance would pay for the loss in the absence of this insurance; and
- (2) The total of all deductible and self-insured amounts under all that other insurance.

We will share the remaining loss, if any, with any other insurance that is not described in this Excess Insurance provision and was not bought specifically to apply in excess of the Limits of Insurance shown in the Declarations of this Coverage Part.



## WAIVER OF SUBROGATION

Insured Name: LLR CONSTRUCTION, LLC Insured Policy Number: WC100-0006044-2022A

Builders Trust of New Mexico waives any right of recovery of subrogation against the certificate holder named on this certificate of insurance, but only to the extent that the employers to whom we provide coverage performs work under a written contract with the certificate holder that requires this waiver.

Name of Person	Name of Organization		
	Blanket Waiver of		
	Subrogation		

Date: 12/8/2021

Countersigned by

andy Z. alkin

Agency Number: 60 – 74 Agency Name: POMS & ASSOCIATES INSURANCE BROKERS, INC.

## **DIVERSITY VENDOR CERTIFICATION PARTICIPATION**

<u>Diversity Vendor Certification Participation</u> - It is the policy of some Members participating in Omnia Partners to involve minority and women business enterprises (M/WBE), small and/or disadvantaged business enterprises, disable veterans business enterprises, historically utilized businesses (HUB) and other diversity recognized businesses in the purchase of goods and services. Respondents shall indicate below whether or not they hold certification in any of the classified areas and include proof of such certification with their response.

1.	Minority Women Business Enterprise		
	Respondent certifies that this firm is an MWBE	Yes	No
	List certifying agency:		
2.	Small Business Enterprise (SBE) or Disadvantaged Business Enterprise (DBE)		
	Respondent certifies that this firm is a SBE or DBE	× Yes	No
	List certifying agency:		
3.	Disabled Veterans Business Enterprise (DVBE)		
	Respondent certifies that this firm is an DVBE	Yes	x No
	List certifying agency:		
4.	Historically Underutilized Businesses (HUB)		
	Respondent certifies that this firm is an HUB	Yes	X No
	List certifying agency:		
5.	Historically Underutilized Business Zone Enterprise (HUBZone)		
	Respondent certifies that this firm is an HUBZone	Yes	X No
	List certifying agency:		
6.	<u>Other</u>		
	Respondent certifies that this firm is a recognized diversity certificate holder	Yes	X_No
	List certifying agency:		



# Search Results

Return to Search

Business/Contractor Name	Business License	Valid
LLR CONSTRUCTION LLC	L1410638768	Valid Resident Certification

Return to Search

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