

# **Safety and Health Investment Projects**

## **FINAL REPORT REQUIREMENTS**

The purpose of the final report of your SHIP project is to:

Evaluate and document the achievements, challenges, and shortcomings of the project for the constructive benefit of others interested in learning from SHIP projects; and

Provide the Division of Occupational Safety and Health with information that shows:

The outcomes specified in the project application were met; and

The grant was used for the purpose(s) for which it was approved and in accordance with relevant WAC rules and any special conditions or requirements; and

The outputs of the project have been disseminated as specified in the application.

The report format has four sections:

Cover Sheet

Narrative Report (part I)

Financial Information (part II)

Attachments (part III)

Please provide complete and detailed information in the final report. If you have questions, please call your SHIP grant manager.

**REMINDER!!!:** All products produced, whether by the grantee or a subcontractor to the grantee, as a result of a SHIP grant are in the public domain and can not be copyrighted, patented, claimed as trade secrets, or otherwise restricted in any way.

# SAFETY AND HEALTH INVESTMENT PROJECTS

## FINAL REPORT

Health Hazards in Residential Construction Video Training Program

Grant # 2014XC00284

November 17, 2014 to January 25, 2016

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Northwest Independent Contractors Association

1/25/16

Kris Alberti



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NICA is solely responsible for the content of and views expressed in this report and related materials unless they have been formally endorsed by the Washington State Department of Labor and Industries.

## PART I

### *Narrative Report*

#### **Organization Profile:**

For awarded organizations, to include partners and collaborators, provide a brief description of each organization. Mission, vision, and purpose for each of the organizations who applied (this includes partners and collaborators) for the grant.

Northwest Independent Contractors Association (NICA) is a non-profit 501(c) 6 trade organization formed in 2005 to provide training and compliance help for contractors



in the Northwest. Since 2005, NICA has trained over 2000 individual students in safety, over 500 in business topics, and over 600 in Disaster Site Work safety and over 200 in GHS HAZCOM training. We also run a soft floor apprenticeship program through the Washington State Apprenticeship Training Council, and are an EPA/WA Dept of Commerce accredited Certified Lead Renovator and Dust Sampling Technician provider. NICA provides HAZWOPER training and are a Medic First Aid/ASHI training center. Kris Alberti is a regular presenter for Contractor Training Days for Labor and Industries around the State. NICA is dedicated to helping small businesses take on issues too daunting, complex or expensive to take on by themselves. We pool the resources of our members to provide easy to use compliance and training tools, such as our Small Business Basics book, Safety Calendar, and other training programs that give real world, simple solutions for meeting regulations and requirements.

**Abstract:**

Present a short overview of the nature and scope of the project and major findings (less than half a page).

The project was to develop a series of videos to help educate contractors, particularly residential renovation contractors on the dangers of lead, asbestos, mold, and silica and best practices for containment, work practices, PPE, and decontamination. The videos were designed to supplement classroom training that covered the more technical aspects of these topics, including all agencies regulating activities, specific regulations, and in depth discussion of the related topics. The goal was to build materials that could be used in other classes, such as Certified Lead Renovator, to alert contractors the need to follow L&I's rules for workers along with the environmental regulations in place.

The major finding based on the materials created and surveys from participants in the trainings presented at Contractor Training Days, the Governor's Safety Conference, and Home Builders Associations are as follows:

- Contractors know very little about the Regulations for lead, asbestos, mold, and silica. They struggle to find resources available for training.
- There is almost no compliance for lead in construction training, medical surveillance, respirator protection programs, asbestos surveys, and work practices that prevent exposure by companies performing residential remodel work.
- The 'internet' or 'online' is the primary way companies research regulations, but they often only visit one government website hoping to find all the information. Videos can be used as tools to educate Contractors that they need more training.
- The simplified concepts of containment, work practices, PPE, and decontamination help protect workers regardless of the health hazard in question. Each concept then can meet the standards for the individual hazard regulation by additional information and training on :
  - Air Monitoring
  - Respirator Programs – selection, medical evaluations, fit testing, cleaning
  - Medical Surveillance Programs – required medical evaluations for each hazard
- Attendees overwhelmingly found multi-topic and training days and certificates as “very valuable” based on the time required away from work.

This developed program addresses all those findings.

**Purpose of Project:**

Describe what the project was intended to accomplish.

This project developed a series of multi-health-hazard videos for small contractors with employees exposed to asbestos, silica, lead and mold in residential remodels and new construction. The Overview video becomes a resource to inform contractors of the multiple agencies, regulations, and safety concepts involved in protecting workers and the public from health hazards. The video can be used in Asbestos Awareness, Lead in Construction, Silica, and mold classes. The videos for containment, choosing Personal Protective Equipment, Work Practices and Decontamination procedures can be used in different classes also and provide visual representation of best practices. They were not designed to be stand alone training or exhaustive of all containment, work practices, PPE, and decontamination variables. However, they show best practice options that will work for many residential renovation remodelers if they are following the Washington State REQUIRED Renovation, Repair and Painting (RRP) rule thru the Department of Commerce.

The RRP rule applies to pre-1978 residences and child occupied facilities and dictates containment, PROHIBITED work practices, and general clean up requirements for Contractors. Firms are required to be certified and individuals are required to take an 8 hour Certified Renovators class covering the dangers of lead, regulations, testing for lead, public education, work practices, cleanup and disposal, record keeping and non-certified worker training. Over 4000 renovators have been trained in Washington State in the last 5 years. However, the training doesn't cover specific DOSH requirements or worker safety training requirements. Adding the developed videos to the Renovator refresher classes will impress on contractors that they have a responsibility to protect workers by providing training, equipment and personal protective equipment that addresses WAC 296-155-176 as well as Commerce 365-230 rule. Since L&I trains very few workers a year in Lead in Construction requirements, providing L&I training through the required, much better attended Department of Commerce Renovator Initial and Refresher courses is logical and shows great customer service for contractors. It's also "outreach" at it's best, go where the contractors are.

Asbestos awareness training is also required for almost all renovation contractors. Adding these videos to that training makes contractors aware of both asbestos and lead requirements. The Overview video provides much needed information on the requirements of Asbestos Abatement Contractor requirements and costs, helping contractors decide if they have the resources to safely perform abatement work. Many contractors attend "Supervisor" training before realizing the costs associated with running abatement "workers" and the equipment required to safely do the jobs. Our video helps them make an educated decision on whether they can meet the requirements to pursue that kind of work.

Because both silica and mold are also ingestion and inhalation hazards and the principals to protect workers are also containment, work practices, PPE, and decontamination; it made sense to include these in the video series. Though no specific regulations require anything but air monitoring for these hazards, we know OSHA is proposing silica rules that will closely mirror the training developed in this program. These videos can be helpful in more extensive silica and mold programs.

**Statement and Evidence of the Results:**

Provide a clear statement of the results of the project include major findings and outcomes and provide evidence of how well the results met or fulfilled the intended objectives of the project.

We provided these opportunities both through live training at Contractor's Training Days and online resources such as an employee handout , Powerpoints, and the video resources posted at [NICASAFETY.COM/HEALTHHAZARDS](http://NICASAFETY.COM/HEALTHHAZARDS) and [YOUTUBE.com/](http://YOUTUBE.com/)

183 people attended our Renovations Requirements classes at Contractors Training Days and the Governor's Safety Conference. We also presented to an additional 106 people at Home Builder's Association Events, for a total of 289 trained.

Survey results are attached showing the majority of participating strongly agreeing multi-hazard training is valuable, resources to find information are online in nature, the videos and training materials were very valuable tools, and very few companies were in compliance or safely performing this work before taking the training. See survey for specific comments.

The evidence suggests we identified a need in the residential construction and remodel industries, developed products to educate and meet that need, and delivered training deemed valuable by the attendees.

Because of the latency period of health hazard illness, we do not have the resources to measure the long term impact of the project. However, L&I research on citations show many contractors would benefit from these developed materials.

**Measures to Judge Success:**

If relevant, state what measures or procedures were taken to judge whether/ how well the objectives were met and whether the project or some other qualified outside specialist conducted an evaluation.

The measures to judge relevancy were survey results summarized in the above comments.

**Relevant Processes and Lessons Learned:**

Specify all relevant processes, impact or other evaluation information which would be useful to others seeking to replicate, implement, or build on previous work

AND

Provide information on lessons learned through the implementation of your project. Include both positive and negative lessons. This may be helpful to other organizations interested in implementing a similar project.

**Process 1: Research**

Initial phase for the project was general research on mold, lead, asbestos, and silica. The process included internet research on [ini.wa.gov](http://ini.wa.gov), [epa.gov](http://epa.gov), [commerce.gov](http://commerce.gov), [osha.gov](http://osha.gov), and related websites.

At the State level, we learned extensive research is required due to the fact you cannot assume regulations are consistent for each county or municipality. An example of this is the different reporting requirements for asbestos projects for each Clean Air Authority in the State.

Next staff members completed advanced training in mold remediation through an online class, Asbestos Supervisor through a third party WA state accredited training provider, and reviewed information from existing sources on Lead and Silica.

Additional research was done on equipment required for work processes associated with renovations, including air monitoring, air filtering, containment, showers, and respiratory equipment by visiting specialty vendors such as Abatix and reps from 3M and Honeywell.

Information was compiled for mold, silica, lead and asbestos in an organized spreadsheet for ease of use in transferring the information into the Health Hazards Handout. The format was divided into Hazards, Regulations, and then related Containment, Work Practices, PPE, and Decontamination. The goal was to combine and simplify the material to make recommendations to contractors that were safe and cost effective.

**Process 2 Presentation and Feedback**

After the basic handout and curriculum was produced, NICA started using it in Contractor Training Day presentation on Health Hazards in Construction. We also presented the curriculum to EPA and Commerce Training Providers on both Lead and Asbestos and got their feedback on deliverables.

This type of feed back was an invaluable part of the process. Getting feedback from other training providers on content and from contractors on the need for types of information before producing a final product turned out to be one of the most important lessons learned in this grant process.

The submitted Handout was sent in for technical review by the end of February, 2015. It was a challenge to present the necessary technical information and make it easy enough to understand. Visually formatting the information in the handout is a key to help contractors quickly see the hazards individually, and how the best practices relate to each other on the job.

At the BIAW Annual Convention, Kris presentated to Remodelers Councils (approx. 50 people) around the state on the Grant Project and requirements for dealing with Lead and Asbestos. Though no formal survey was taken at this event, remodelers from around the State expressed how little they knew about L&I's requirements for Asbestos Surveys and Lead in Construction Training. This

presentation lead to invitations to speak at local remodelers councils throughout the year. Presenting to trade organizations at their events is an efficient way to reach a broad geographical area at one event.

A Relevant process learned was the importance of interfacing with all agencies who have a “stake” in the topic – for example, lead cuts across many agencies. Developing a training that keeps people in compliance with all them might make it easier for contractors. And this process may include several rounds of technical review by different agencies to make sure all regulations are at least referenced in the material. Added time for technical review should be included for topics with multiple agencies or regulations attached.

The final step for curriculum was to develop a slideshow from the technically reviewed handout. To make sure we covered each required aspect of training, we built a matrix of the related WACs and crossreferenced each required item with the complying slide, handout page, or video segment that meant the intent of the section. This showed how, as a complete package, employers could use the developed materials to train their employees if they customized the work practices sections to relate to their activities. We added disclaimers to the start of the videos to emphasize they were part of, not training in themselves.

Creating a line by line compliance matrix of the WACs involved and how we addressed each issue of training through the powerpoint, handouts or videos to explain our process turned out to be wonderful tool. Internally, we learned how creating one of these early on in our process would have helped design the training, find gaps, and speed up technical review. All SHIP grantees or curriculum builders should use something similar to fully grasp the regulatory requirements of a topic .

After all the training and reviewing the quiz test results from the presentation, the Health Hazards online test was completely reworked so it no longer included double-negatives and options where multiple answers were correct.

At the Governor’s Safety Conference Kris presented the full Health Hazards in Construction class for safety professionals using the handout, the PowerPoint presentation, the pull-up banner, the Overview video and the 4 shorter videos (PPE, Work Practices, Decon and Containment). The responses from the students were very positive. They viewed the certifications received as very valuable. Some of their biggest take-aways from the class included having a higher respect for PPE, understanding of the multiple agencies involved, and that the handout is very well done and concise.

Tests were given with the average score of 84%. Governor’s Safety Conference was supposed to be the introduction of the products to the State. There was a question added to the survey where the students could write if they felt that there were any technical inaccuracies, which no one responded to.

### Process 3 Filming

Using our own in house crew to film was a more efficient way to create these products. Using the Handouts as our “storyboard” we were able to establish shots based on step by step processes.

Lessons learned included having multiple camera shots of each task, securing releases for background people and buildings, and having technical review (by a subject matter expert) of the footage before filming is complete at each location.



**SUMMARY OF LESSONS LEARNED:**

In house filming is overall more efficient. Combining technical experts and creative partners in the same process lead to easier edits, better visual quality and an overall better product. However, the learning curve is longer for both the technical and video people to understand the process required for both.

Create WAC MATRIX chart of project and identify specific items to be addressed in videos or through other training products or classes.

Using 'DRAFT' material in classes and getting feedback from the audience was invaluable to make better products. I would recommend this for all future SHIP grantees.

Having "REQUIREMENTS" in the name of the class was important. When we titled it "Health Hazards in Construction" we got between 5-14 students, when we renamed it "Renovation Requirements for Asbestos, Lead, Silica, and Mold" we jumped up to 25-33 students per class.

Involving technical review earlier in the process may help the final developed products be more accurate. Footage should be reviewed by the technical department at a date early enough to allow re-shooting the clip, if technical errors are involved. Meeting face to face with the review staff may expedite the process when specific issues are not resolved through other methods of communication. If an issue is cited by technical review, alternate wording as feedback would be invaluable.

Online testing works excellent, had good feedback, and was efficient. However, many contractors preferred paper, the internet connections at several locations were poor causing the tests to 'time out', and it took time to get people to login and take the test.

**Product Dissemination:**

Outline of how the products of the project have been shared or made transferrable.

A printable version, and a version with live links of the Health Hazards Handout has been made available on our website at [www.nicasafety.com](http://www.nicasafety.com). The PowerPoint presentation is also available there and can be used by contractors for training their employees. The Overview, Decon, Work Practices, PPE and Containment videos are up on our NICA Safety YouTube channel.

We will continue to intermittently offer classes through Contractor Training Day, Remodeler's Council meetings and Construction Safety Day using these materials.

Department of Commerce Training Agents for Certified Lead Renovator who represent the Lead Supervisor/Worker and Asbestos Supervisor/Worker training providers will be sent out links to all our developed materials and provide them at the next annual Training Agents meeting.

**Feedback:**

Provide feedback from participants, trainees, individuals who have used your products/processes, as well as any reports from an independent evaluator on the project.

See attached spreadsheet of survey results.

Other feedback includes comments from a Master Builder's of Snohomish and King County event in November. Kris spoke and showed the Overview video. Several contractors approached after the event commenting on the professionalism and video quality. Five contractors commented on how they didn't know the AHERA survey rules, nor the additional Lead in Construction requirements in addition to the RRP. An abatement contractor commented on how the video accurately showed what is involved to do a 'simple popcorn ceiling' and how it is important contractors get a complete picture.

**Project's Promotion of Prevention:**

Explain how the results or outcomes of this project promote the prevention of workplace injuries, illnesses, and fatalities?

The powerpoint, handouts, and videos were designed to promote the prevention of workplace injuries and fatalities by using affective learning techniques to motivate the workers to be aware of the hazards and take steps to protect themselves, including holding contractors responsible for providing medical surveillance, PPE, and proper equipment.

Bottom line, the simplified concepts of containment, low dust work practices, PPE, and decontamination will do the most to actually protect workers. Even a poorly fitted respirator will protect a worker more than a masterfully written (but unexecuted) respirator protection program. Of course, compliance is necessary, even a motivator to get people to training, but understanding and implementing the core safety steps are the most important aspects of this product.

**Uses:**

How might the products of your project be used within the target industry at the end of your project?

Is there potential for the product of the project to be used in other industries or with different target audiences?

Contractors will have the ability to go online and download our products to provide in-house training on the topics covered. They will also have access to live training at one more upcoming Contractor Training Day events.

Training providers will also have open access to the products with the ability to use them in a variety of training programs.

Real Estate, Education facilities, health care facilities and government agencies may also find the videos and training products useful.

## Additional Information

<p><b>Project Type</b></p> <p><input type="checkbox"/> Best Practice</p> <p><input type="checkbox"/> Technical Innovation</p> <p><input checked="" type="checkbox"/> Training and Education Development</p> <p><input type="checkbox"/> Event</p> <p><input type="checkbox"/> Intervention</p> <p><input type="checkbox"/> Research</p> <p><input type="checkbox"/> Return to Work</p> <p><input type="checkbox"/> Other (Explain):</p>	<p><b>Industry Classification</b> (check industry(s) this project reached directly )</p> <p><input type="checkbox"/> 11 Agriculture, Forestry, Fishing and Hunting</p> <p><input type="checkbox"/> 21 Mining</p> <p><input type="checkbox"/> 22 Utilities</p> <p><input checked="" type="checkbox"/> 23 Construction</p> <p><input type="checkbox"/> 31-33 Manufacturing</p> <p><input type="checkbox"/> 42 Wholesale Trade</p> <p><input type="checkbox"/> 44-45 Retail Trade</p> <p><input type="checkbox"/> 48-49 Transportation and Warehousing</p> <p><input type="checkbox"/> 51 Information</p> <p><input type="checkbox"/> 52 Finance and Insurance</p> <p><input type="checkbox"/> 53 Real Estate and Rental and Leasing</p> <p><input type="checkbox"/> 54 Professional, Scientific, and Technical Services</p> <p><input type="checkbox"/> 55 Management of Companies and Enterprises</p> <p><input type="checkbox"/> 56 Administrative and Support and Waste Management and Remediation Services</p> <p><input type="checkbox"/> 61 Educational Services</p> <p><input type="checkbox"/> 62 Health Care and Social Assistance</p> <p><input type="checkbox"/> 71 Arts, Entertainment, and Recreation</p> <p><input type="checkbox"/> 72 Accommodation and Food Services</p> <p><input type="checkbox"/> 81 Other Services (except Public Administration)</p> <p><input type="checkbox"/> 92 Public Administration</p>
<p><b>Target Audience:</b> Statewide WA</p>	
<p><b>Languages:</b> English</p>	
<p><b>Please provide the following information - -</b> (information may not apply to all projects)</p>	
# classes/events:	13
# hours trained	43
# students under 18	0
# workers	183
# companies represented	151
# reached (if awareness activities)	106
<b>Total reached</b>	289
<p><b>List, by number above, industries that project products could potentially be applied to.</b></p> <p>53, 54, 62, 92</p>	
<p><b>Potential impact (in number of persons or companies) after life of project?</b></p> <p>1000+ (based on companies reached and on views of previous GHS HAZCOM videos)</p>	
<p><b>Have there been requests for project products from external sources? Yes, from other training providers.</b></p> <p><i>If Yes, please indicate sources of requests:</i> RGA/Argus</p>	

## PART II

### *Financial Information*

#### *Budget Summary*

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<b>Project Title:</b>	Health Hazards in Residential Construction Video Training Program		
<b>Project #:</b>	<b>2014XC00284</b>	<b>Report Date:</b>	1/25/2016
<b>Contact Person:</b>	Kris Alberti	<b>Contact #:</b>	509-246-9080
<b>Start Date:</b>	Nov 1, 2014	<b>Completion Date:</b>	December 31, 2015

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1.	<b>Total original budget for the project</b>	\$ <u>114,996.00</u>
2.	<b>Total original SHIP Grant Award</b>	\$ <u>114,996.00</u>
3.	<b>Total of SHIP Funds Used</b>	\$ <u>114,996.00</u>
4.	<b>Budget Modifications (= or - if applicable)</b>	\$ <u>(amount same)</u>
5.	<b>Total In-kind contributions</b>	\$ <u>0.00</u>
6.	<b>Total Expenditures (lines 3+4+5)</b>	\$ <u>114,996.00</u>

#### Instructions:

Complete the Supplemental Schedule (Budget) form first (on the next page).

The final report must include all expenditures from date of completion of interim report through termination date of grant.

Indicate period covered by report by specifying the inclusive dates.

Report and itemize all expenditures during specified reporting period per the attached supplemental schedule.

Forms must be signed by authorized person (see last page).

Forward one copy of the report to **Grant Manager Name, SHIP Grant Manager** at **PO Box 44612, Olympia, WA 98504-4612**

PART II *(Continued)*

*Financial Information*  
*Supplemental Schedules (Budget)*

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<b>Project Title:</b>	Health Hazards in Residential Construction Video Training Program		
<b>Project #:</b>	<b>2014XC00284</b>	<b>Report Date:</b>	1/25/16
<b>Contact Person:</b>	Kris Alberti	<b>Contact #:</b>	509-246-9080
<b>Total Awarded:</b>	\$114,996.00		

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**ITEMIZED BUDGET:** How were SHIP award funds used to achieve the purpose of your project?

	Budgeted for Project	Amount Paid Out	Difference
<b>A. PERSONNEL</b>	\$85,231.71	\$85,231.71	\$0.00
Explanation for Difference and other relevant information:			

	Budgeted for Project	Amount Paid Out	Difference
<b>B. SUBCONTRACTOR</b>	\$0.00	\$0.00	\$0.00
Explanation for Difference and other relevant information:			

	Budgeted for Project	Amount Paid Out	Difference
<b>C. TRAVEL</b>	\$14,769.08	\$14,769.08	\$0.00
Explanation for Difference and other relevant information:			

	Budgeted for Project	Amount Paid Out	Difference
<b>D. SUPPLIES</b>	\$6420.63	\$6420.63	\$0.00
Explanation for Difference and other relevant information:			

	Budgeted for Project	Amount Paid Out	Difference
<b>E. PUBLICATIONS</b>	\$2359.70	\$2359.70	\$0.00
Explanation for Difference and other relevant information:			

	Budgeted for Project	Amount Paid Out	Difference
<b>F. OTHER</b>	\$6214.88	\$6214.88	\$0.00
Explanation for Difference and other relevant information:			

	Budgeted for Project	Amount Paid Out	Difference
<b>TOTAL DIRECT COSTS</b>	114,996	114996	0
	Budgeted for Project	Amount Paid Out	Difference
<b>TOTAL INDIRECT COSTS</b>	0	0	0
	Budgeted for Project	Amount Paid Out	Difference
<b>TOTAL SHIP BUDGET</b>	114,996	114996	0

	Budgeted for Project	Amount Paid Out	Difference
<b>G. IN-KIND</b>	0		
Explanation for Difference and other relevant information:			

I hereby certify that the expenditures listed on this report were made with my approval:

1/25/16

Date



Signature of Project Manager

## PART III

### ***Attachments:***

Provide resources such as written material, training packages, or video/ audio tapes, curriculum information, etc. produced under the grant.

Also include copies of publications, news releases, curriculum, posters, brochures, etc.

**The above information should also be provided on a CD or DVD for inclusion in the file.**

DVD: must be in an MP4 format

Other video files must be provided in uncompressed source files.

Publications:

PDF of publication should be provided. SHIP also needs the original publishing documents (design documents), .eps, and .psd (if any illustrations/graphics are used)

**REMINDER!!:** All products produced, whether by the grantee or a subcontractor to the grantee, as a result of a SHIP grant are in the public domain and can not be copyrighted, patented, claimed as trade secrets, or otherwise restricted in any way.