



## ALLOY STEEL CHAIN SLING – PERIODIC INSPECTION

1. Consolidated Nuclear Security, LLC (CNS) ID NO \_\_\_\_\_ 2. Size \_\_\_\_\_

	Accept	Reject	N/A
3. Verify that the sling is properly marked with (as a minimum): Size _____ Number of Legs _____ Reach _____ Manufacturer's Grade _____ Manufacturer's Name _____ Rated Load & Angle upon which the rating is based. _____			
4. Hang the chain in the vertical position and inspect chain links and attachments for wear. Chain should hang reasonably straight if links are not distorted. Record minimum link diameter: _____			
5. Visually inspect the chain and attachments link-by-link and remove from service if any of the following conditions are identified.			
a) Bent or stretched links;			
b) Scores, abrasions, heat damage or weld spatter;			
c) Cracks in any section of the link;			
d) Does not hinge freely with adjacent links.			
6. Visually inspect links for nicks, gouges, or corrosion.			
7. Visually inspect hooks and remove from service if any of the following conditions are identified.			
a) Distortion, such as bending or twisting; > 10 degrees or manufacturer's recommendation Record actual measurement(s): _____			
b) Increased throat opening; > 15% or manufacturer's recommendation Record actual measurement(s): _____			
c) Wear; > 10% or manufacturer's recommendation Record actual measurement(s): _____			
d) Cracks, nicks, or gouges;			
e) Latches on hooks that do not seat properly, do not rotate freely, are missing, or show permanent distortion.			
8. Comments:			
9. Inspector's Signature: _____			Date: _____

**INSTRUCTIONS FOR COMPLETING ALLOY STEEL CHAIN SLING PERIODIC INSPECTION**

A qualified inspector shall complete the inspection form by filling in the blanks or placing a check mark in the appropriate column for each inspection item. This form provides a record of equipment condition in order to provide a basis for continuing evaluations.

1. Enter the Y-12 CNS equipment identification number.
2. Enter the size of the alloy steel chain sling.
3. Review the manufacturer's markings and confirm that the information on the sling is legible and complete.
4. Lift each link from its seat and visually inspect for grooving (wear). If grooving is noticed, measure the stock diameter of the link at the smallest section. This dimension must be equal to or greater than the dimension provided in Table A or that which is specifically recommended by the manufacturer.

**Table A - Alloy Steel Chain Slings (Grade 80)**

Nominal Chain Size Inches (in.)	Minimum Allowance Chain Size at Any Point of Link (in.)
1/4 .....	15/64
3/8 .....	19/64
1/2 .....	25/64
5/8 .....	31/64
3/4 .....	19/32
7/8 .....	45/64
1 .....	13/16
1 1/8 .....	29/32
1 1/4 .....	1
1 3/8 .....	1 3/32
1 1/2 .....	1 13/64
1 3/4 .....	1 7/16

5. Inspect each link and attachment for visible signs of bends, stretch, scores, breaks, defective welds, weld spatter, abrasions, discoloration from heat damage, and cracks.
6. Inspect for sharp transverse nicks and gouges. If discovered, round out by grinding. After grinding, the minimum diameter of any link at the smallest section must be equal to or greater than the dimension provided in Table A.
7. Inspect hooks and if any of the following conditions exist, they shall be removed from service.
  - a) Bending or twisting exceeding 10 degrees (or as recommended by the manufacturer) from the plane of the unbent hook.
  - b) Distortion causing an increase in throat opening exceeding 15% at the narrowest point of the original measurement when the hook was new (or as recommended by the manufacturer).
  - c) Wear exceeding 10% (or as recommended by the manufacturer) of the original section dimension at the saddle of the hook or its load pin.
  - d) Cracks, nicks, and gouges.
  - e) Latches on hooks that do not seat properly, do not rotate freely, are missing, or show permanent distortion.
8. Use this space to provide comments as appropriate. Use of this section is optional.
9. Review the inspection form and if acceptable, affix the new inspection due date sticker to the back of the Y-12 CNS I. D. tag on the sling. If not acceptable, attach a **Defective Do Not Use** tag to the sling and remove from service. Sign and date the inspection form.