

COULSON AIRCRANE LTD (HELI) and COULSON FLYING TANKERS

ENVIRONMENTAL RISK MANAGEMENT

(Revised March 2008)

Environmental Aspect 1.Element • Interaction	Specific Activities /Product/Service	Consequence	Exposure	Initial Risk	Likelihood	Managed Risk Significance ≥ 75	Control Current-Status/Action Plan Target- Objectives	Primary Responsibility	Target Dates for Compliance
1. damage to Aircraft from external sources <ul style="list-style-type: none"> • Oil or fuel leaks contaminating site • Batteries spilling contaminating site • Foam concentrate contaminating site • Hitting objects during scooping or docking causing fuel leak • Sinking of aircraft • Structural debris from wreckage resulting in contamination to site • Fire resulting in contamination 	<ul style="list-style-type: none"> • age of equipment • operator • preparedness • security • spill kits • fire extinguishers • Limited Visibility 	40	6	Current 240	3	720	<ul style="list-style-type: none"> • pre start up inspection • scheduled maintenance • Strobe and mooring lights • Locking tie-down cables • spill kits on aircraft • fire extinguishers on aircraft • operating procedures • training 	<ul style="list-style-type: none"> • General Manager/ chief operating officer 	<ul style="list-style-type: none"> • On going
		40	6	Target 240	2	480	<ul style="list-style-type: none"> • Enhanced spill response training • Review security procedures • Replace mooring chain as required- Sept 2003 • Review procedures with flight crews • Replace chains • Yearly inspection each spring 	<ul style="list-style-type: none"> • General Manager Chief operating officer 	<ul style="list-style-type: none"> • To be completed by August 2004 and reinforced

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4 Leaks from aircraft while in Water • Fuel/ Oil leaks entering lake or other water body • Fluid from broken hydraulic hoses entering water.	<ul style="list-style-type: none"> Oil leaks not inspected regularly Hydraulic hoses not inspected regularly 	15	6	Current 90	5	360	<ul style="list-style-type: none"> Pre start up inspection Scheduled maintenance 	<ul style="list-style-type: none"> Director of Maintenance 	<ul style="list-style-type: none"> Ongoing
		15	6	Target 90	3	270		<ul style="list-style-type: none"> Inspections initiated Improvements to flats Upgrades to aircraft 	
5. Spill or Leak from helicopter fueling site • Spill or leak from fuel line containing site or lake • Spill or leak from parked helicopter contaminating site or lake	<ul style="list-style-type: none"> System not checked regularly Damage from helicopters Damage from ground equipment 	15	6	Current 90	3	270	<ul style="list-style-type: none"> System checked periodically Oil water separator on pad area Designated handling and refueling area Parking area and procedure for ground d equipment Spill kits Restricted access to site 	<ul style="list-style-type: none"> Director of Maintenance 	<ul style="list-style-type: none"> On going
		15	6	Target 90	2	180	<ul style="list-style-type: none"> Review responsibly and communication procedure Maximum environmentally safe system Periodic check 	<ul style="list-style-type: none"> Director of Maintenance 	<ul style="list-style-type: none"> Implemented in May 2003 Monitor performance by July each year

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8. Materials from Oil Storage Shed containing site. • Oil, hydraulic fluid or various spills containing site. • Residue from unprotected materials entering drainage structures and containing water.	<ul style="list-style-type: none"> Poor user training Malfunction of equipment Materials stored too close to water bodies Materials not produced from weather 	7	6	42	1	42	<ul style="list-style-type: none"> Storage and clean up procedures Containment Monitoring and inspections Maintain minimum effective inventory of materials Maintain materials under covered area 	<ul style="list-style-type: none"> Director of Maintenance 	<ul style="list-style-type: none"> Ongoing
							•	•	Ongoing
9. • Leaks from Aircraft while positioned on Ramp Area • Fuel /Oil leaks entering lake or other water body. • Fluid from broken hydraulic hoses entering water • Fire damage to site	<ul style="list-style-type: none"> Poor operator training Malfunction of equipment. Oil leaks not inspected regularly. Hydraulic hoses not inspected regularly Machine malfunction 	7	6	42	1	42	<ul style="list-style-type: none"> Pre start up inspections Scheduled maintenance Minimize quantities of oil in barge(200 gal) 	<ul style="list-style-type: none"> Director of Maintenance 	<ul style="list-style-type: none"> Ongoing
10. Leaks, from support equipment operating on Ramp Area Fuel/Oil leaks entering lake or other water body Equipment driving into lake	<ul style="list-style-type: none"> Poor operator training Malfunction of equipment 	7	6	42	1	42	<ul style="list-style-type: none"> Protection and clean up procedures Pre work and end of day monitoring and inspections Designated parking area. 	<ul style="list-style-type: none"> Director of Maintenance 	On going
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.11. Dropping contaminated substances during flight operations • Fuel or oil contaminating sites • Retardant contaminating sites	<ul style="list-style-type: none"> • Damaged goods received from supplier • Poor installation of materials in aircraft • Ineffective maintenance • Ineffective reporting and clean up 	7	1	7	3	21	<ul style="list-style-type: none"> • Monitoring and Inspections • Spill clean up procedures • Fuel and foam systems are separated in aircraft • Aircraft maintenance • Use of low toxicity foam low concentration (0.4% foam) also no use of Phoschek or Gelgard 	• Director of Maintenance	• Ongoing
<ul style="list-style-type: none"> • 12. Spill or leak from Office Hangar area • Fuel or oil contaminating sites • Retardant contaminating sites • Septic system malfunction contaminating sites 	<ul style="list-style-type: none"> • Damaged goods received from supplier • Poor storage practices on site • Septic system on checked and maintained 	7	1	7	3	42	<ul style="list-style-type: none"> • Inspections • Returning damaged goods to supplier • Site maintenance • Septic system located away from water sources 	• Director of Maintenance	• Ongoing
13. Waste oil from Sepaerator by Maintenance area being deposited into the lake Oil/Water Separator overflow	<ul style="list-style-type: none"> • Not checking system • Heavy rainfall causing level in separator to rise 	15	6	90	0.2	18	<ul style="list-style-type: none"> • Scheduled inspections clean up and maintenance of system. • Increase monitoring during periods of heavy runoff. 	• Director of Maintenance	On going
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<ul style="list-style-type: none"> .14. Power line damage from impact to power poles • Fire damage to site • PCB spillage from transformers contaminating site 	<ul style="list-style-type: none"> • Poor training of operators of ground support equipment • Malfunction of equipment • Leaking or spills from transformers 	15	4	45	0.2	12	<ul style="list-style-type: none"> • Safe work procedures • Monitoring and inspections • Power poles guarded • Use of non-PCB transformers 	<ul style="list-style-type: none"> • Director of Maintenance 	<ul style="list-style-type: none"> • Ongoing
15 Inefficient use of equipment using energy <ul style="list-style-type: none"> • Wasting energy 	<ul style="list-style-type: none"> • Age of equipment • Energy consumption • Air pollution 	7	3	21	0.5	11	<ul style="list-style-type: none"> • Scheduled preventative maintenance • Inspections • Conservation practices • Lower emissions from new equipment (incl. propane) 	<ul style="list-style-type: none"> • Director of Maintenance 	<ul style="list-style-type: none"> • Ongoing
16 Inefficient use of raw materials Damage to aircraft parts or other products by equipment Wasting aircraft materials foam concentrate or other products through deterioration	<ul style="list-style-type: none"> • Poor operator training • Use of inappropriate equipment • Extended length of storage 	7	3	21	0.5	11	<ul style="list-style-type: none"> • Scheduled preventative maintenance • Selection of equipment • Inventory control • Training 	<ul style="list-style-type: none"> • Director of Maintenance 	<ul style="list-style-type: none"> On going