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MATRIX
AVIATION SOLUTIONS INC.

CHAPTER 10 - SPILL CONTINGENCY PLAN

A. SCOPE AND PURPOSE

This plan has been developed as part of a commitment by Matrix Aviation Solutions Inc. to minimize any detrimental effect its operations may have on the environment. The focus of this plan will be on Flight Operations and the related support activities that are the responsibility of Matrix Aviation Solutions Inc.

The plan is designed to combat petroleum product spills on land and/or into watercourses.

As the need arises, Matrix Aviation Solutions Inc. may enter into agreements for the sharing of expertise and equipment with other companies, municipalities and resource agencies.

The Plan will be updated and revised, as the situation requires.

B. ORGANIZATION AND RESPONSIBILITIES

Responsibility for the overall organization and implementation of the Fuel Spill Contingency Plan rests with our Operations Department. The Operations Manager or his designate will co-ordinate the response activities.

Matrix Aviation Solutions Inc. will provide an On-site Coordinator, (OSC), the Spill Plan, spill equipment, supplies, and will arrange for disposal of spilled fuel in concert with government agencies.

Contractors, sub-contractors and suppliers will provide assistance in all phases of clean up as directed by the OSC. In the event that a contractor, sub-contractor or supplier or their employees causes a spill, Matrix Aviation Solutions Inc. will charge clean-up and disposal expenses to the responsible party. The OSC will:

- 1) Be familiar with fuel spill procedures, equipment and contact numbers.
- 2) Provide liaison with the Provincial or Territorial Emergency Program, Ministry of Environment and Department of Fisheries personnel where applicable.
- 3) Direct the actions of personnel during clean-up operations.
- 4) Familiarize key personnel with fuel spill equipment and procedures.
- 1) Will prepare a report on all aspects of any spill.



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C. SPILL POTENTIAL

The most probable locations of fuels spills are:

1) Mobile Fuel Trailers/Fuel Truck Dispensers

Spills from these units during transport are unlikely, barring any vehicular accidents or similar events. Should such a situation occur the presence of trained personnel, on-board radio communication and a quick response would result in minimal impact to land ecosystems. It is possible that this type of spill could result in runoff into a fish-bearing stream. Operators of these mobile tank/trucks will be trained in initial fuel spill response measures.

2) Portable Fixed Tank Dispensers

Matrix Aviation Solutions Inc. utilizes a number of small fixed tanks set up in designated areas for fuel caches. Spills from these sources could be as the result of vandalism, improper fuel handling or inadvertent valve opening. Tanks are set up in bermed areas or have been manufactured with integral secondary containment; therefore spill damage would be limited to contamination of soil in a localized area. Other types of spills that could occur are small drips or leaks. The use of drip pails and absorbent pads under elevated valves or dispensers eliminates virtually any potential impact to the environment.

3) Permanent Base Facilities

Base facilities have refueling systems, which are comprised of either, underground tanks, or Enviro-tank style systems (which are manufactured with integral secondary containment). Either system utilizes a fuel dispensing system, with the most likely source of a spill being a drip or leak, similar to portable fixed tank dispensers.

4) Helicopters/Motor Vehicles

All helicopters operated by Matrix Aviation Solutions Inc. have fuel tank capacities in excess of the 100 litre (22 gallon) *mandatory* reportable spill volume. Adherence to safe working practices, capped fuel tanks and the presence of personnel in the vicinity of an accidental spill or inadvertent leakage would allow for an immediate response and limited threat of environmental damage.



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D. DISCOVERY, IDENTIFICATION, ACTION, and NOTIFICATION PROCEDURES

1) Discovery of a fuel spill

Upon discovery of a spill personnel should immediately:

- a) identify the product that is spilling, or has spilled;
- b) assess immediate hazards, and ensure all on-site persons are aware of them;
- c) secure the site; and,
- d) commence initial notification of appropriate personnel and agencies.

2) Identification /Assessment of spill

This step is critical to ensure the safety of responders, and to minimize the impact to the environment. The assessment should include:

- e) reassess the material spilled and quantity spilled;
- f) reassess any immediate hazards;
- g) identify all the safety issues that need to be dealt with before taking action. These include ignition sources, protective clothing and public safety.
- h) Refer to Material Safety Data Sheets for product identification and handling.

3) Action

This part of the plan will reconfirm all the safety steps that need to be followed when taking action. The person who takes charge is responsible and should:

- i) ensure the use of trained personnel is prioritized when possible;
- j) brief responders on safety issues, first aid procedures for material involved;
- k) secure the site from public access;
- l) ensure responders are wearing appropriate protective equipment;
- m) eliminate all sources of ignition;
- n) stop the source of the spill or contamination *if it is safe to do so*;
- o) remain at the scene and use every effort to contain the spill until such time as help arrives. This would include the arrival of the OSC, or agency of authority.

4) Notification

The Operations Manager or the appointed OSC will take note of the following information from the discoverer:

- a) discoverer's name
- b) time and location of the spill;
- c) material spilled and approximate quantity;
- d) cause of spill if known;
- e) weather conditions;
- f) action taken so far;
- g) immediate serious threats (water courses, fire)

The Matrix Aviation Solutions Inc. representative will then make the following contacts as required and dependent on seriousness or threat:

- a) Provincial Emergency Program (PEP will usually notify MOE);
- b) R.C.M.P. - local office, when public roads or fatalities are involved;
- c) Federal Department of Fisheries and Oceans;
- d) Appropriate Managers of Matrix Aviation Solutions Inc.;

E. SPILL CONTROL AND CLEAN-UP PROCEDURES

1) Spill Prevention

All employees, contractors and other personnel will do their utmost to prevent the spillage of fuels. Handlers of fuels will ensure that valves are closed and hoses are in good repair.

Containment buckets shall be used in refueling operations.

2) Spill Kits/Materials

Matrix Aviation Solutions Inc. will have appropriately sized spill kits and/or equipment positioned with all:

- Bases of operation
- Remote fuel tanks, trailers, or trucks
- Company vehicles

Each Spill Kit will contain a copy of the NHI Spill Contingency Plan, complete with an Emergency Contact List, Spill Report and Spill Response Card.

While the contents of each kit will vary depending on the type and capacity of tanks, containers, and/or storage facility, the contents may include:

- fuel absorbent pads, booms, granulated materials, and heavy duty plastic bags;
- *Plug-N-Dike* type of material;
- empty drums or containers for the storage/disposal of soiled materials;
- hand tools, pumps, hatch-cone kits, and flagging tape;
- personal protective gear e.g. rubber gloves, boots, rain gear, and safety glasses.

3) Spill Containment

IN ALL CASES

EXTINGUISH CIGARETTES AND SHUT OFF IGNITION SOURCES.

a) Into a water body, creek or stream

- 1) implement Discovery & Notification Procedure;
- 2) stop fuel flow if safe to do so;
- 3) employ oil absorbent pads, booms and other materials;
 - use pads and blankets on downstream water bodies,
 - use containment boom if necessary,
- 4) employ skimmer pump if suitable and necessary;
- 5) collect oiled materials and place into empty drums.



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b) Onto land

- 1) implement Discovery and Notification Procedure;
- 2) stop fuel flow and contain spill if possible;
- 3) pick up residual oil with absorbent pads;
- 4) dispose of oiled materials into empty drums;
- 5) collect and dispose of contaminated soil, as per M.O.E.

F. REMOVAL AND DISPOSAL OF OILED MATERIAL

1) Disposal of Soiled Pads, Pillows and Booms

These materials will be contained in old fuel barrels or other suitable containers. Permission will be sought from the M.O.E. to burn these materials as they burn very hot and leave very small amounts of ash.

2) Skimmed Oil and Water

In the event a skimmer is used in clean up the resulting oil/water mix will be placed in a holding tank and disposed of according to D.F.O. and M.O.E. instructions.

3) Excavated Oiled Soil Material

Contaminated soil will be excavated, stored and disposed of as directed by the M.O.E.

G. RESTORATION OF THE SPILL SITE

Matrix Aviation Solutions Inc., will act as directed by the appropriate authorities or agencies to ensure the prompt and efficient clean up of affected areas.

H. SPILL REPORT OUTLINE

The On Scene Coordinator (OSC) shall prepare a report of the spill for the use of Matrix Aviation Solutions Inc. and government agencies. The report shall contain the following information:

- 1) time and location of spill;
- 2) material and quantity spilled;
- 3) cause of spill;
- 4) action taken and by whom;

- 5) comments on compliance with procedures by parties involved;
- 6) action taken and involvement of government agencies.;
- 7) manpower and equipment hour summaries - by phase;
- 8) cost estimates - by phase;
- 9) recommendations to prevent future spills;
- 10) recommendations to improve clean-up programs.

I. PUBLIC RELATIONS

The Operations Manager of Matrix Aviation Solutions Inc. shall act as spokesperson and shall make it clear to all parties seeking information on the spill that comments will come from Matrix Aviation Solutions Inc. management only. Initial information shall be restricted to:

- 1) approximate location;
- 2) type of material spilled;
- 3) time of spill;
- 4) action being taken.

All releases or discharges of hydro carbon fuels must be reported immediately to Spill
Line at 920-8130.

SPILL REPORT:

- a) Name of Reporter and telephone number: _____
- b) Name of person causing spill and telephone number: _____
- c) Location of spill: _____
Time of spill: _____
- d) Substance spilled: _____
Quantity: _____
- e) Cause and effect of spill: _____
- f) Measures taken to stop/contain/minimize spill: _____
- g) Description of spill location and surrounding area: _____
- h) Details of further action required: _____
- i) Names of agencies on site: _____



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j) _____ Names of others advised of spill: _____

DATE: _____

REPORTED COMPLETED BY: _____

EMERGENCY CONTACTS AND COMMUNICATION CHANNELS

Matrix Aviation Solutions Inc.

Operations Manager

Assistant Operations Manager

Emergency Services – Municipal and Community Affairs (NWT) _____ 920-6133

Local Police (RCMP-Canada) 911 or _____ 669-1111

Federal - Department of Fisheries & Oceans

Yellowknife _____ 669-4900

Ministry of Environment (NWT)

Yellowknife _____ 873-7654

Environment Protection (Nunavut)

Iqaluit _____ 1-867-979-3660

Local Fire Department

911 or () _____ 873-2222



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Canutec (Canada) Information
Emergency

(613) 992-4624
(613) 996-6666

Air/Ground Radio Communications will be on FM Frequency 162.45 or _____

OIL SPILL RESPONSE CARD

ANY PERSON CAUSING OR DISCOVERING AN OIL SPILL SHALL:

- A. ENSURE THE SAFETY OF PERSONNEL IN THE AREA
- B. ELIMINATE ALL SOURCES OF IGNITION
- C. IF POSSIBLE STOP THE FLOW OF FUEL
- D. IMMEDIATELY CONTACT YOUR CLOSEST SUPERVISOR OR COMPANY PERSONNEL. BE PREPARED TO GIVE THEM THE FOLLOWING INFORMATION:
 - 1 YOUR NAME
 - 2 TIME & LOCATION OF SPILL
 - 3 MATERIAL SPILLED AND QUANTITY
 - 4 CAUSE OF SPILL
 - 5 WEATHER CONDITIONS
 - 6 ACTION TAKEN SO FAR
 - 7 IMMEDIATE SERIOUS THREATS (i.e. property, water ways, fire)
- E. REMAIN AT THE SCENE AND USE EVERY EFFORT TO CONTAIN THE SPILL, UNTIL SUCH TIME AS HELP ARRIVES.

SAFETY PROCEDURES

- **LAND: APPROACH FROM UPHILL OR UPWIND**
- **WATER: APPROACH FROM UPWIND OR TIDE DIRECTION**
- **RIVER APPROACH: FROM UPWIND OR WITH CURRENT**
- **AVOID BREATHING VAPOURS**
- **AVOID SKIN CONTACT OR WASH IMMEDIATELY**
- **REMOVE CONTAMINATED CLOTHING**