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Nunavut Regional Office
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Your file - Votre référence
NWB2NA0305
Our file - Notre référence
9545-1-2-NAN-G

Ms. Dionne Filiatrault
Senior Technical Advisor
Nunavut Water Board
Box 119,
Gjoa Haven, NU. X0B 1J0

Dear Ms. Filiatrault,

Re: Emergency Response/Spill Contingency Plan and Abandonment and Restoration Plan.

Thank you for providing INAC with an opportunity to review the above-mentioned plan. I have the following comments to offer:

Abandonment and Restoration Plan.

Overall, I do have any significant concerns with plan as outlined in the proponent's presentation. Given that this is a small, temporary field camp, I believe that Dunsmuir Ventures has adequately covered the major areas of potential concern.

I have one suggestion, however, with regard to the proponent's method of disposing of camp garbage; that is, the incineration, or more correctly, open burning, of refuse in a pit. In my experience, open burning in an excavated pit is not an efficient means of incinerating garbage. Nor is it advisable employ this method if one intends to assist the burn through the addition of flammable liquids; with the attendant risk of those liquids escaping into the ground.

I have attached instructions for a very simple incinerator design which is highly portable and can be constructed cheaply. The design – which has an excellent track record – was conceived and developed by a couple of Wildlife Officers and a Wildlife Technician with the former GNWT Department of Renewable Resources in Yellowknife. We constructed several of these units and tested them here in the Baffin Region in the early 1990's and found them to be a cheap, effective and practical solution for disposing of domestic garbage from small camps.

I have a design for a larger, less portable unit (approx. 500 pounds), which we devised for use in permanent outpost camps and which I will be happy to provide to the proponent if they are

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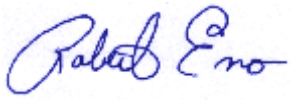
interested, however, I believe that the smaller unit will be more suited to their requirements.

Spill Response Plan

My comments with respect to the spill plan are appended to this letter in a separate format.

This concludes my comments. If you or the proponent have any further questions or require clarification on any of the material in this submission, feel free to get in touch with me at the coordinates below.



Robert Eno
Water Resources Coordinator

Indian and Northern Affairs Canada
Spill Contingency Plan Review Checklist

Additional Information Required (☒)

☐ Name, address and title of person in charge

☐ Name, job title & 24 hour number of person responsible

☐ Location, size & capacity of facility

☒ Type and amount of contaminant

☒ Site map

☐ Steps taken to report, contain, clean up & response

☐ How plan is activated

☒ Description of training provided to employees/designated responders

☐ Inventory & location of equipment

☐ Date plan prepared

Additional Comments:

1. Because this is an exploration camp, it is presumed that the person in charge – Mr. Ken Hicks – does not require a 24 hour contact number. Presumably, he will always be within hailing distance.

2. The proponent should provide the geographic coordinates (UTM and mapsheet number preferred) of the camp and a rough estimate of its distance, in hours, from the nearest community.

3. The types of contaminants are listed, however no quantities were provided.

4. The proponent should list the types and quantities of chemicals which will be brought out to the site. MSDS sheets for each chemical should be available to all employees at all times.

5. The proponent should provide a site map of the area, identifying the location of

structures, contaminants storage areas, likely pathways of contaminant flow (in the event of a spill) potentially sensitive areas, such as water bodies, and general topography. Given that this is a small camp and a temporary operation, a rough, hand-drawn map is acceptable.

6. The plan indicates that personnel will be trained in hazardous materials spill response, however, it does not provide any details about the nature of this training.

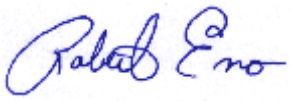
7. The reviewer is unable to assess the adequacy of the spill cleanup equipment inventory without knowing the quantities of the hazardous materials that are to be stored on site. The reviewer recognizes that this is a small camp and therefore it would be unreasonable to expect them to have on hand, the requisite equipment for every conceivable occurrence. In the event that the proponent does not have enough material on site to deal with a major spill (they do occasionally happen; even in small camps), they should make prior arrangements to have additional equipment brought in if it becomes necessary to do so. Such a contingency for outside assistance should be described in the plan.

8. With respect to greywater and sewage, the proponent is encouraged to consult a public health official for additional advice on disposal and handling.

9. The Government of the Northwest Territories' Environmental Protection Service has developed a very useful set of spill planning and reporting guidelines to complement their *Spill Contingency Planning and Reporting Regulations*; both of which have also been adopted by the Government of Nunavut. The proponent may find these guidelines to be helpful in developing future spill plans.

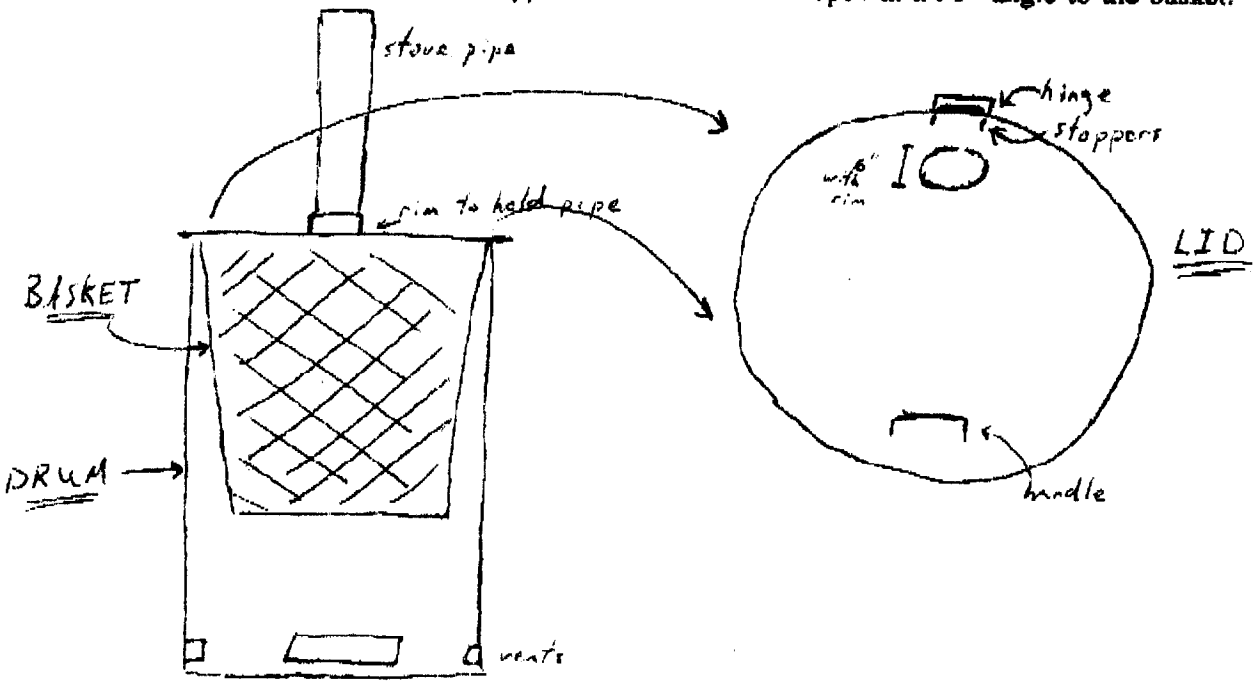
Review Date: 14/11/2003

Reviewer: Robert Eno



Goodday Robert!

As per your request, here is an update on our incinerator plans: Due to a mis-communication between the welding company and myself, the exact plans you received from me were not constructed. It was reasonably close though. The most important part of the design is still that the lid and wire mesh basket are a one piece unit. This accommodates easy use and portability. The lid however was not constructed as a split-hinged lid. It is a whole lid but still has the 6" hole for the stove pipe on top. The lid opens from the basket at a hinge located behind the 6" hole at the lip of the basket. Remember the lip keeps the unit on top of the drum. The lid now has stoppers which can hold it open at a 90° angle to the basket.



I tested out the unit on ordinary household garbage. It contained thick cardboard, newspaper, plastic, leftover fish parts, an oyster tin, and two aluminum pop cans (among other things). With three holes punched in the bottom of a 45-gallon drum and only using regular unleaded gas & wood for fuel, the burn went very well. An excellent draft was created and smoke poured out the chimney (6' of stove pipe was used). Few ashes were left after the burn. Nothing was left of the aluminum pop cans but the oyster tin and some tin-foil were left unscathed. I was quite pleased with the results however we still recommend a slower burning fuel for incineration.

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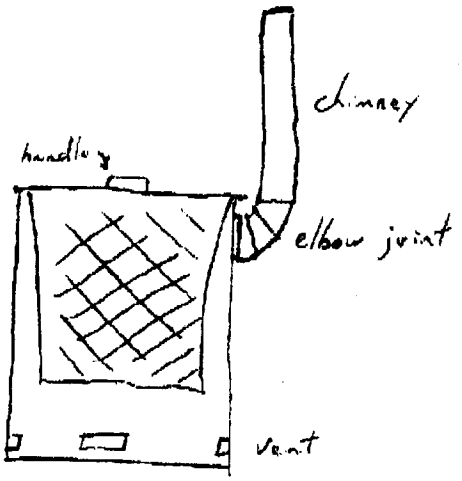
There is a problem for our model however. The lid acts as a flue channelling the flow of smoke and heat to the chimney. If the lid is opened during incineration, it is likely that flames may shoot out at the body opening it. The operator will not be able to add garbage to the unit unless the burn is completed. This may pose a problem to the larger camps which create lots of garbage to burn at once. However if multiple incinerator units are in place at a camp, and burns are completed after every meal, the units should be able to withstand the garbage load created.

We had three incinerator units constructed for $870.00. All three of these units were given to and are in place at Bathurst Arctic Services' Salmita Camp on Matthews Lake. This is an exploration camp with about 50 people in it. So far no complaints or comments have filtered back to me.

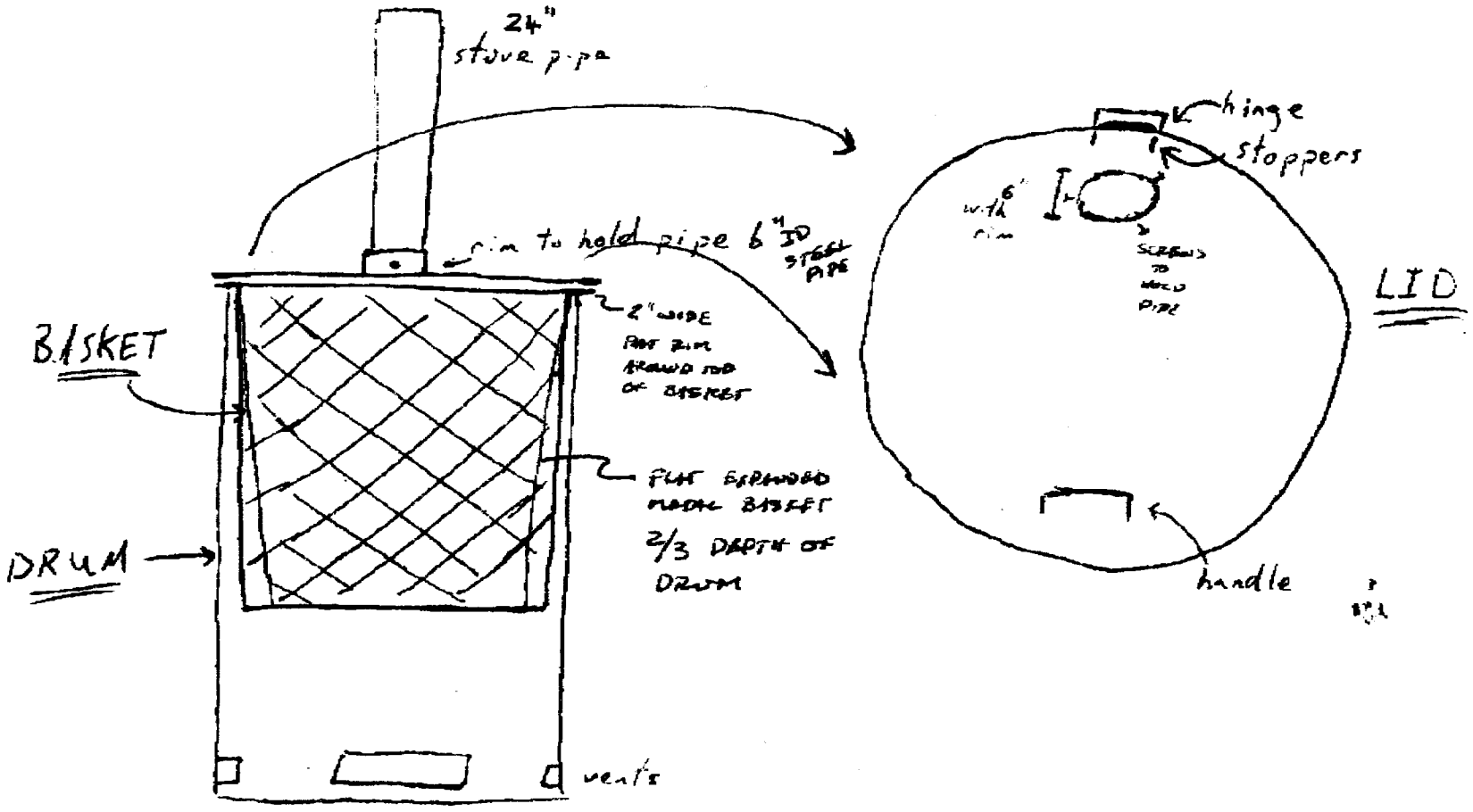
Andy [redacted] (Con. Ed. Officer, Yellowknife) likes the idea of moving the chimney to the side of the drum. Using an elbow joint affixed to the side, the stove pipe would protrude from there. The lid and basket would still be a one piece unit. Andy is now working on getting that model made up and sent out. This model would be safer as the flue is on the side of the barrel, not the top. However, the problem with this is that assembly is required for use. In the field, someone will have to punch a hole in the side of the drum and then bolt the elbow joint to it. I believe the best model should require little or no assembly or maintenance.



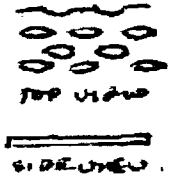
So this is the stage we are at now. Ray [redacted] and myself look forward to any comments or suggestions that you might have. Cheers!

Robert [redacted]
Wildlife Technician

July 27, 93



BASKET MATERIAL WAS EXPANDED METAL



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