Inference at $*$
of proof for Lemma do-apply-mu':

$\vdash \forall A$:Type, P:($A \rightarrow \mathbb{N} \rightarrow \mathbb{B}$), d:($\forall x$:A. Dec($\exists n$:$\mathbb{N}$. ($\uparrow$(P(x,n))))), x:A.
($\uparrow$can-apply(mu'(P);x))
$\Rightarrow$ {($\uparrow$(P(x,do-apply(mu'(P);x)))) & ($\forall i$:{0..do-apply(mu'(P);x)$^-$}. $\neg$($\uparrow$(P(x,i))))}
by (Auto·)
CollapseTHEN ((MoveToConcl (-1))
CollapseTHEN ((RepUR "
mu\' can-apply do-apply" (0)·)
CollapseTHEN ((Subst' TERMOF{p-mu-decider:ObjectId,
1:l,
1:l}
$\sim$
TERMOF{p-mu-decider:ObjectId,
1:l,
i:l} (0)·)
THENL [(
RW (SubC (ComputeToC [])) 0)
CollapseTHEN (Trivial)· ; Id]·)·)·)·

1:

1. A : Type
2. P : $A \rightarrow \mathbb{N} \rightarrow \mathbb{B}$
3. d : $\forall x$:A. Dec($\exists n$:$\mathbb{N}$. ($\uparrow$(P(x,n))))
4. x : A

$\vdash$ ($\uparrow$isl((TERMOF{p-mu-decider:ObjectId, 1:l, i:l}(A,P,d,x)).1))
$\Rightarrow$ {($\uparrow$(P(x,outl((TERMOF{p-mu-decider:ObjectId, 1:l, i:l}(A,P,d,x)).1))))
& ($\forall i$:{0..outl((TERMOF{p-mu-decider:ObjectId, 1:l, i:l}(A,P,d,x)).1)$^-$}.
$\neg$($\uparrow$(P(x,i))))}

.

http://www.nuprl.org/FDLcontent/p0_963683_/p20_438131_{do-apply-mu!}.html